

ELLIPSIS IN SPANISH

Antonio Fábregas

Norwegian University of Science and Technology

ABSTRACT. This article presents a descriptive and analytical overview of potential ellipsis cases in Spanish. After highlighting the main complications that the notion of ellipsis brings up, this work presents a detailed summary of the main empirical properties of ellipsis in nominal, verbal and clausal contexts. Then, the main theories about ellipsis and the analytical alternatives to standard deletion at PF are presented. The article concludes with a discussion of what type of properties ellipsis may have in Spanish.

Keywords: ellipsis, deletion, movement, coordination, sluicing, gapping, stripping, fragments, NP-ellipsis, argument ellipsis, predicate ellipsis, pro-forms.

RESUMEN. Este artículo presenta una descripción y un resumen analítico de los posibles casos de elipsis en español. Tras resaltar las principales complicaciones que plantea la noción de elipsis, este trabajo expone un resumen detallado de las principales propiedades empíricas de la elipsis en contextos nominales, verbales y clausales. Seguidamente se exponen las principales teorías sobre la elipsis y las alternativas analíticas al borrado estándar en la Forma Fonológica (PF, por sus siglas en inglés). El artículo concluye con una discusión sobre qué tipo de propiedades podría tener la elipsis en español.

Palabras clave: elipsis, borrado, movimiento, coordinación, elipsis en cláusulas reducidas, elipsis en frases fragmentadas, elipsis en frases incompletas, fragmentos, elipsis de NP, elipsis de argumentos, elipsis de predicados, pro-formas.

1. Main problems in the study of ellipsis

In broad terms, ellipsis can be defined as a situation where a constituent is unpronounced but semantically recoverable due to the presence of an associate that is similar enough to it. A bona fide case of ellipsis is shown in (1)

- (1) Juan sabe hablar inglés y Marta no.
 Juan knows to.speak English and Marta not
 'Juan can speak English and Marta can't'

In principle, (1) shows ellipsis of the syntactic constituent <*sabe hablar inglés*>, 'can speak English', in the second conjunct. In the rest of this article, we will represent ellipsis as in (2), trying to be as neutral as possible with respect to what syntactic object is at the ellipsis site:

- (2) Juan sabe hablar inglés y Marta no <sabe hablar inglés>.
 Juan knows to.speak English and Marta not knows to.speak English
 'Juan can speak English and Marta can't'

(1) is a standard case of bona fide ellipsis because, (i) the semantic interpretation is one where the conjunction *y* 'and' does not coordinate a noun and an adverb with a sentence, but coordinates two distinct sentences, one affirmative and one negative, that involve the same predicate; (ii) the material that is interpreted corresponds to a bona fide syntactic constituent

© Antonio Fábregas. *Borealis: An International Journal of Hispanic Linguistics*, 2023, 12 / 2. pp. 1-134.
<https://doi.org/10.7557/1.12.2.7228>

This is an Open Access Article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/legalcode>) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.



including an inflected auxiliary, a lexical verb and a direct object to the exclusion of the subject of the clause and a polarity particle, *no* 'not'; (iii) that constituent is unpronounced and (iv) there is an identical pronounced constituent in the syntactic environment, *sabe hablar inglés*, in the first conjunct, whose presence allows ellipsis.

This example allows us to state the initial conditions that the literature has signalled as necessary to talk about ellipsis in a restrictive sense.

a) A sequence is unpronounced, but there is evidence –at least, interpretative evidence– that something is present.

b) The elided sequence corresponds to a syntactic constituent, potentially a constituent created after movement of the internal material that is not elided (the remnant)

c) The elided sequence is present at some level of representation and has become unpronounced at some point, that is, it was not phonologically empty per se, as is the case with silent pronouns

d) The unpronounced sequence has a linguistic associate that is identical to it (at the relevant level of representation), and which makes it possible to recover the lexical and syntactic information that is unpronounced.

e) The process is optional, that is, the elision of the interpreted structure is not grammatically compulsory.

This set of properties has been taken as the guiding principles to identify cases of ellipsis, in principle. They make it possible to state a restrictive definition of ellipsis that distances itself from the intuitive use of the term in (for instance) rhetoric, which can be represented by the following quote by Saint Isidore (*Etymologiae* 34,10):

(3) Eclipsis est defectus dictionis, in quo necessaria verba desunt, ut *Cui pharetra ex auro deest enim 'erat'*.

'Ellipsis is incomplete speech where necessary words are missing, such as "Who a quiber of gold", where 'had' is missing.

This intuitive definition does not state that ellipsis must have a linguistic antecedent. In the example cited by Saint Isidore, that comes from Virgil, there is no associate 'be' in the linguistic context, and rather what happens is that a verb 'be' is being interpreted to complete the grammatical form of the linguistic utterance, something that is possible perhaps due to its light nature.

There are many cases that conform to the definition of ellipsis in the intuitive sense, but not to the restrictive definition, mainly because there is a linguistic antecedent missing. One such case is fragments of speech such as (4):

(4) [A man is guiding two workers that are bringing a sofa into the house]
¡Arriba!
'Up!'

This fragment is interpreted as a speech act, specifically a directive that tells the workers to move the sofa in some direction. However, there is no linguistic antecedent that allows us to determine what material is missing in the utterance. We will discuss cases like these in §5.2.2 below and conclude that they cannot be treated as ellipsis cases within the restrictive definition of ellipsis.

The abundant literature about ellipsis in Spanish and other languages has generally assumed the restrictive definition of ellipsis and has discussed –among other questions that we will

highlight in the pages to come– the need to postulate it in different types of examples, the relations that the associate and the ellipsis site establish and the type of operation that underlies the silent segment (see, among many others, Barrenechea 1974, Kovacci 1975, Rodríguez Díez 1983, Bosque 1984, Brucart 1984, 1987, 1999, Hernández Terrés 1984, Zagona 1988, Gutiérrez Ordóñez 1992, Jiménez Juliá 1995, López 2000, Kornfeld & Saab 2004, Saab 2008, 2009, 2010, 2018, Vicente 2008, 2009, 2018, Arregi 2010, Depiante 2011, Barros & Vicente 2011, Depiante & Vicente 2012, González-Vilbazo & Ramos 2014, Saab & Lipták 2016, for Spanish, and in more general terms Ross 1967, 1969, Chomsky 1971, 1972, Keenan 1971, Wasow 1972, Morgan 1973, Sag 1976, Sag & Hankamer 1976, 1984, Williams 1977a, 1977b, Hankamer 1979, McCloskey 1991, Reinhart 1991, Hardt 1993, Fiengo & May 1994, Chung, Ladusaw & McCloskey 1995, Lobeck 1995, Fox 2000, Hartmann 2000, Merchant 2001, 2004, 2018, Johnson 2001, Goldberg 2005, DeClercq 2009, Aelbrecht 2010, Landau 2010, van Craenenbroek 2010, Abels 2012, Ott 2014, Barker 2013, Barros 2014, Sailor 2014, 2018, Weir 2014, Abe 2015, Wurmbrand 2017, or Yoshida, Potter & Hunter 2019).

1.1. *Limits of the notion of ellipsis*

What the formal definition of ellipsis means is that, generally speaking, not everything that is unpronounced but syntactically or interpretatively present is a case of ellipsis, at least in the strict sense: ellipsis is defined as an operation that applies on a syntactic constituent under certain conditions, the most important of which is the presence of a linguistic associate that is 'similar enough' to the elided constituent. There exist analyses where cases traditionally called 'ellipsis' are accounted for by empty categories without deletion (see §7 and §8) but the point is that such analyses claim that ellipsis is unnecessary, as a distinct operation, to account for those data. In the strict definition, ellipsis means 'deletion' of some elements.

This means that one cannot strictly consider ellipsis cases where an empty pronominal occupies the silent position. Indeed, the set of properties removes from the standard definition of ellipsis any case of unpronounced syntactic material that is assumed to lack a phonological representation by itself (as opposed to becoming silent by some PF operation). Empty categories –traditionally, variables and traces, small *pro* and big *PRO*, see Chomsky (1981)– are not cases of ellipsis in this narrow definition:

- (5) *pro* No come *PRO*
 not eats
 'He/She does not eat'

By hypothesis, if the event denoted by *comer* 'eat' involves two participants, an agent and a patient, there are two unpronounced syntactic constituents that are interpreted, each one of them corresponding to one participant. However, (5) does not comply with the definition of ellipsis in the strict sense, because there is no associate in the syntactic environment that is 'similar enough' to the empty categories and (at least, standardly) empty categories do not become silent by deletion or any PF operation. Consequently, *pro* and *PRO* are not phonologically empty –again, according to the traditional analysis– as a result of an operation that erased their representation at some structural level: they are assumed to be empty categories, that is, elements which (perhaps in their lexical entry) lack any phonological representation and are therefore inherently unpronounced. This, of course, does not mean that an analysis where these are the result of ellipsis is inconceivable, as we will see in this overview.

Other cases are more problematic to categorise and may involve adding additional requisites to the definition of ellipsis. Within Minimalism (Chomsky 1995), the goal is to derive properties of syntactic objects from interface conditions, when not from general cognitive

principles. In this enterprise, postulating that some object is unpronounced by brute force is dispreferred. Traces, which were empty categories (Chomsky 1981), are analytically replaced by Copies (Chomsky 1995). A copy is an instantiation of the same syntactic element within the syntactic numeration (Nunes 2011). In cases of movement –more appropriately called 'internal merge', that is, the merge in a different position of a constituent that was already part of the syntactic tree–, multiple copies will appear. A sentence like (6a), which would be represented with traces signalling intermediate relations established by the initial *qué* 'what' in Government and Binding theories (6b), is now represented as (6c), involving three instantiations –copies– of *qué*.

- (6) a. ¿Qué dice Juan que comiste?
 what says Juan that ate.2sg?
 b. ¿Qué_i dice Juan t_i que comiste t_i?
 c. ¿Qué dice Juan <qué> que comiste <qué>?

Crucially, at the phonology only one copy –generally, the highest one– can be represented. Nunes (2011) argues that this has to do with the impossibility of linearising an object that occupies distinct positions in the tree, as a set of copies establishes multiple and contradictory c-commanding relations with the rest of the constituents it has to be linearised with. The reason does not concern us for the moment: what is relevant from the perspective of ellipsis is that one needs to apply a 'delete' operation to the two lower copies that appear in (6c), so that only the first copy emerges. Is this then a case of ellipsis? In both cases we applied a deletion operation to a constituent so that it is unpronounced, and in both cases there is an associate –here, the initial copy– that is 'similar enough'.

There are two differences between (6c) and (1):

a) In (1) the two constituents, the elided one and the associate, are not instantiations of the same syntactic object, derived by movement / internal merge. That is, by hypothesis in (1) the syntax started with a numeration where there were two tokens of the noun 'English', the verb 'hablar', the auxiliary 'saber', etc. In contrast, in (6) syntax does not start with a set of elements that includes three tokens of 'what': there is only one token of 'what' that is copied and merged at different positions in the tree, giving rise to three instantiations. In other words: by hypothesis the two 'can speak English' in (1) are not related by movement, but the three 'what' in (6) are related by movement and (in traditional terms) form a single structural chain.

b) In (1) the associate does not c-command the elided element, but in (6) the highest copy c-commands the other two copies. In fact, as we will see, it is enough for standard cases of ellipsis that the associate linearly precedes the elided element –sometimes, cases where the associate is after and not before the elided element have been proposed–, without any type of c-command, while in standard cases for a copy to be deleted at least there must be a c-commanding copy at some derivational step that c-commands that one.

The question that emerges is whether these two differences grant postulation of two separate operations, 'delete' and (something like) 'elide', which apply at different points, or the same operation should be used for both. In fact, some analyses of ellipsis –for instance, those involving gapping and Right Node Raising– have been argued to be cases of movement, within a general program that tries to unify ellipsis and copy deletion under the same type of operation (§8.5). We will see that this brings up issues about the role of linear relations in syntax, the levels at which c-command is relevant and the timing of the relation between syntax and phonology.

Not all the properties of ellipsis are equally uncontroversial. In principle, one can have on the surface ellipsis of non constituents, such as gapping structures:

- (7) Juan pidió la paella y María, la sopa.
 Juan ordered the paella, and María, the soup

Obviously, the subject and the object are not constituents to the exclusion of verbs. However, if one assumes movement of the object outside from the VP (assuming that the subject is already outside the VP), the verb will become a constituent in the absence of the rest of the material, which allows ellipsis to apply to only one linguistic constituent. This is, however, an analytical claim, which may be supported or not by the data (see §2.5 and §8.6).

Another controversial property of ellipsis is the requisite that it is optional. There are indeed –in particular, with respect to sluicing, §5.1– structures that would be ungrammatical without ellipsis but that are perfectly grammatical with bona fide ellipsis:

- (8) Juan conoce a un chico que habla una lengua oriental, pero no sé cuál.
 Juan knows DOM a guy that speaks a language oriental, but not know which
 'Juan knows a guy that speaks an oriental language, but I don't know which one'

That sentence involves a remnant from the ellipsis site that should have been extracted out from a relative clause, which is a process that is ungrammatical without ellipsis.

- (9) *¿Qué lengua oriental conoces a un chico que habla ___?
 which language oriental know DOM a guy that speaks?

It seems, then, that ellipsis is compulsory here. This is, actually, one of the reasons why some researchers working on sluicing have proposed that sluicing does not involve full structure in the syntax, but actually copular paraphrases or copying at LF (see §8.3, §8.4). In general, then, ellipsis is viewed as an optional operation, and cases where the structure cannot be overt are analysed, typically, as instances involving empty pronouns, movement or other operations that get the effect for free without having to apply a proper ellipsis operation.

1.2. *The level of application of ellipsis*

There is a central analytic problem within the definition of ellipsis: what conclusions can we derive from silence? That is, at which level has the material associated to the (bona fide) syntactic constituent been erased? In a standard architecture of grammar, there are at least two such levels: syntax and spell out / phonology.

- (10) syntactic representation
 ↓
 spell out

The initial option to analyse ellipsis has been that ellipsis involves deletion at the phonological level –alternatively, absence of spell out–, but in principle ellipsis could also apply to the syntactic structure, a position that has been supported by the observation that at least some types of ellipsis have syntactic consequences, such as the possibility of escaping an island. A relevant example is (11), a case of sluicing –ellipsis of a whole clause minus an interrogative pronoun or a similar expression, cf. §5.1–.

- (11) *María se irá si viene una persona a la fiesta, pero no sé quién.*
 María SE will.leave if comes a person to the party, but not know.1sg who
 'María will leave if a person comes to the party, but I do not know who'

The pronoun 'who' in the remnant of the ellipsis is interpreted as the person that, was he or she to come, María would leave the party. The problem is that in order to assign this interpretation, 'who' must be the subject of the verb 'come', which is embedded inside a conditional clause. Extraction of an interrogative from a conditional is, of course, ungrammatical:

- (12) *¿Quién se irá María si <quién> viene a la fiesta?
 who SE will.leave María if <who> comes to the party?

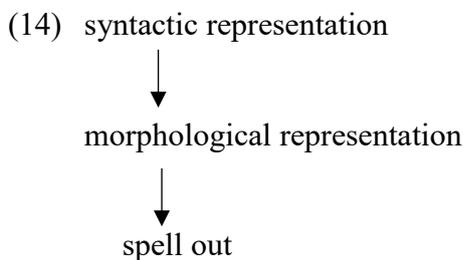
The ungrammaticality of this extraction is obvious if we try to reconstruct the ellided material:

- (13) *María se irá si viene una persona a la fiesta pero no sé quién <María
 María SE will-leave if comes a person to the party but not know who María
 se irá si ___ viene a la fiesta>.
 SE will-leave if comes to the party

One way in which the contrast between (11) and (12) has been interpreted is that some types of ellipsis, like sluicing, involve some type of syntactic level modification. If the structure is somehow 'erased' in syntax, the conditional clause that prevented extraction of the interrogative goes away, and nothing prevents movement.

Now, the question is whether we need ellipsis in two levels, we have distinct operations for what we call ellipsis, and ultimately how we can conclude at which level a particular type of ellipsis applies.

The number of potential levels where one could have ellipsis depends on how many levels of representation one assumes in the model. Assuming for the time being –we will get back to this– that the list of lexical items and semantics are not appropriate levels (as ellipsis must be an operation and the material should be interpreted), theoretical assumptions can multiply the number of levels where ellipsis could apply. In some approaches, such as Distributed Morphology, spell out and syntax are intermediated by a morphological representation, which actually produces three relevant levels where the material may be erased: syntax, morphology and phonology.



Nevins (2012) is an example of a theory where there is one single operation of 'deletion' that can apply at different levels, including a morphological module. Nevins, in fact, considers that this deletion is some kind of 'generalised haplology' operation.

1.3. Properties that make ellipsis special

The study of ellipsis generally concentrates on three factors that follow from its nature as an operation that somehow allows the interpretation of non-overt structure. As detailed in Merchant (2018), these three factors can be described as follows:

a) The nature of the elliptical constituent: is there syntactic structure on the ellipsis site, and if so at which level of analysis is that structure present? As we will see in sections §7 and §8, there is a broad range of theoretical options. In some theories, the ellipsis site is syntactic in nature, and is constructed in a normal way during the syntactic derivation: it only becomes special at PF, when no exponent is introduced to materialise the structure, or alternative where the exponents become deleted. In other theories, there is a syntactic constituent in the ellipsis site, but in principle that constituent does not reproduce the structure that is interpreted, and a copying operation is applied at LF that reproduces the syntax of the associate. Other propose that the ellipsis site may contain syntactic structure that is not necessarily parallel to the associate, and can simply paraphrase it. Finally, others propose that the ellipsis site is syntactically empty and that its resolution is purely semantic, sometimes even conceptual (see §2.1 below for the notion of ‘deep anaphora’, which is similar in some aspects to it).

b) The requisite of identity between the ellipsis site and its associate: we know that recoverability requires that there should be some type of parallelism between the elliptical element and the associate that is used to interpret it (see Fiengo & Lasnik 1972 for a convincing argument that in the absence of an associate ellipsis becomes unrecoverable), but at the same time we know that this identity cannot be mere surface identity. For instance, the two elements can differ in terms of agreement, as in the following case of gapping:

- (15) a. Tú pediste sopa y nosotros pedimos cordero.
 you ordered soup and we ordered lamb
 b. Tú pediste sopa y nosotros, cordero.
 you ordered soup and we, lamb.

Even though *pediste* and *pedimos* are not surface identical, verb gapping is perfectly possible. Once we know that the identity cannot be surface identity, then, the question emerges of what counts as ‘identical’. Some approaches, as we will review in §2.1, have argued that the elliptical element and the associate must be non-distinct, where agreement features do not count for distinctness. Other approaches propose that the identity must apply in structural terms, while another set of analyses argues that the parallelism is appropriately defined at a semantic level, allowing even paraphrases whose structure is distinct from the associate. In some types of ellipsis, moreover, a parallelism in information structure seems to be crucially required to license identity.

c) The question of licensing: even when the associate is parallel to the ellipsis site, ellipsis may be impossible, as it happens in the second sentence of the following pair:

- (16) a. Un alumno entregó el examen, pero no todos (e).
 a student delivered the exam, but not all (e)
 ‘A student delivered the exam, but not all <students delivered the exam>’
 b. *Un alumno entregó el examen, pero no cada (e).
 a student delivered the exam, but not each (e)
 Intended: ‘A student delivered the exam, but not each one of them’

There must be a syntactic or semantic difference between *todo* 'all' and *cada* 'each' that makes it possible for the first but not for the second to license an ellipsis site in its complement. This in turn means that specific syntactic sites allow or disallow ellipsis, which raises the question of what properties must have the syntactic-semantic contexts that allow ellipsis. This question will be discussed in §7, §8 and §9.

Beyond these three core questions in the study of ellipsis, there are two additional factors, one internal and one external, that make the study of ellipsis particularly complex. The first property is its optionality: with the caveat of some cases where ellipsis has been argued to allow extraction from an island (Ross 1969, see §5.1), there are no syntactic or semantic contexts that force ellipsis. Sometimes, an utterance which does not use ellipsis can be perceived as more redundant or less economical than a sentence that uses it, as in (17) below, but this does not mean that the sentence without ellipsis is ungrammatical in any sense.

- (17) a. Juan trajo flores a la fiesta y María trajo cervezas a la fiesta.
 Juan brought flowers to the party and María brought beers to the party
 b. Juan trajo flores a la fiesta y María, cervezas.
 Juan brought flowers to the party and María, beers.

Secondly, as it is the case with movement, sometimes determining whether a structure contains ellipsis is an analytical choice that requires a detailed argumentation, and competes with other analyses that do not require ellipsis. A classical example in Spanish grammar are sentences like (18), where one can argue for an elliptical analysis (18b) or simply propose that the syntax of comparative codas can simply contain a DP –so that what you see is what you get–.

- (18) a. Ana gana más dinero que Pedro.
 Ana earns more money than Pedro
 b. Ana gana más dinero que Pedro <gana>.
 Ana earns more money than Pedro <earns>

1.4. *Main issues and roadmap*

The study of ellipsis, or even navigating the literature about this topic, faces a number of problems, then. The first one is the use of the term, to begin with. There are at least three ways of using 'ellipsis':

- a) Ellipsis in an intuitive sense: ellipsis involves any situation where one interprets the information associated to a word that would have been expected to appear but does not.
- b) Strict ellipsis: ellipsis always involves the deletion of linguistic material in the presence of an identical associate
- c) Broad ellipsis: ellipsis involves silent structure that is interpreted but unpronounced due to some associate linguistically explicit element

We will not mention the intuitive notion of ellipsis in this overview, except to single out the cases that should fall there during our empirical overview. The two other notions of ellipsis, both of them broadly attested in the literature, will be of interest in this overview. The strict use of ellipsis as the result of an operation of deletion, in principle distinct of the non-pronunciation of copies of moved constituents, is currently very restricted in the literature. The reason is that it presupposes an additional operation ('deletion'), something that is at odds with the general

tendency in current theories to minimise the theoretical machinery, and therefore the operations that syntactic objects allow.

Most cases of the use of 'ellipsis' in the current literature fall in the broad sense: although they share the idea that there is something silent in the ellipsis site (in contrast to what-you-see-is-what-you-get theories, often abbreviated as WYSIWYG, see §8.1) and that this something is recovered by association to some linguistic material, most analyses of ellipsis do not currently propose a deletion operation, but try to reduce that silent structure to the presence of empty categories with pronominal properties or the effect of movement operations.

The rest of this article is structured as follows. In §2, as an introduction to the empirical and theoretical issues involving ellipsis, we will present four concepts that are presupposed by any description of potential cases of ellipsis: deep vs. surface anaphora, the relation between anaphoric and cataphoric reference, connectivity effects and vehicle change cases.

In sections §3 to §5 we will revise the empirical properties of all potential ellipsis cases in Spanish, pointing out also those cases that are ungrammatical, in particular when they correspond to ellipsis constructions that are attested in other languages. We will explore the ellipsis of nominal constituents and their members in §3, bona fide cases of verbal and predicate ellipsis in §4 and cases of clausal ellipsis –where clause should be interpreted as 'material containing the VP and at least some functional projections'– in §5. In §6, we provide an interim summary of the properties of ellipsis types in Spanish, highlighting those cases which do not conform to the broad or strict definition of ellipsis, and those that seem to behave as one would expect of pronominal elements.

The rest of the article up to the conclusions concentrates on the theoretical and analytical aspects of ellipsis. §7 is devoted to presenting the reader a structured overview of the analytical alternatives that have been proposed in the literature to deal with ellipsis. §8 expands the main theories about ellipsis through selected analysis of gapping, VP-ellipsis, Right Node Raising and sluicing, which are arguably the most controversial ellipsis types. §9 discusses the issue of what is the height of ellipsis, in the broad sense, in Spanish and asks the question of whether the nodes that in Spanish license ellipsis have some property in common. Finally, §10 discusses the problem of ellipsis within morphological objects, and §11 concludes.

Let us start.

2. A minimal toolbox for the study of ellipsis

As the reader may deduce from the discussion above, ellipsis is a very complex issue that forces us to identify properties of an object that is silent. For this reason, and before we move to the empirical description of the possible and impossible patterns of ellipsis, we need to introduce the reader to some central theoretical claims that have been made about bona fide ellipsis cases. I have divided these central claims in three sections, one for each one of the main analytical questions in ellipsis:

- a) The relation between the associate and the ellipsis site (§2.1, §2.2)
- b) So-called 'connectivity effects', that try to diagnose the presence of syntactic structure in the ellipsis site, as opposed to cases where the ellipsis site contains one single empty category used as a pronominal of sorts (§2.3)
- c) So-called 'vehicle change' scenarios, which discuss the notion of identity between the associate and the ellipsis site (§2.4)
- d) The properties of remnants at the ellipsis site (§2.5)

2.1. Deep and surface anaphors

In an intuitive sense, the relation between the associate and the ellipsis site is similar to the relation that is established between an anaphoric expression and its antecedent –and here we

use 'anaphoric' in the sense that is generally adopted in textual semantic studies, that is, as involving previous mention in the text-. Hankamer & Sag (1976) capitalise on this property and they propose two types of anaphora that have become extremely useful to differentiate cases of real ellipsis from cases involving some type of pronominal reference or deictic access.

Hankamer & Sag (1976: 392) start from the following observation: in an extralinguistic context where one can identify an event, but that event is not explicitly mentioned, ellipsis is not possible but a verbal pro-form is:

- (19) [Hankamer attempts to stuff a 9-inch ball through a 6-inch hoop]
 a. Sag: #It is not clear that you will be able to.
 b. Sag: It is not clear that you will be able to do it.

The idea is that, in the absence of a linguistic antecedent, the recoverability of the event that Sag refers to has to be done pragmatically, that is, within the extralinguistic context. The pro-form *do it* allows this pragmatic association, but the bona fide ellipsis of the VP cannot.

Hankamer & Sag (1976) call the cases where there is an (overt) pronominal form that can access the pragmatic context cases of Deep Anaphora. Cases where there is a linguistic antecedent and the pragmatic information is of no or little use are called cases of Surface Anaphora.

In the theoretical universe of the 70s, semantic-pragmatic properties were taken to be pre-syntactic, related to the conceptual level before it is codified in linguistic expressions, and that is the reason why the pragmatically-available cases of anaphora are called 'deep'. In modern terms, the term Deep Anaphora is deprived of these properties, but it is still used in particular to refer to cases where the material that is implicit but interpreted are codified through a pronominal that may pick its reference from the extralinguistic context. It is safe to say that, at least in pre-theoretical terms which allow for quite different analyses, Surface Anaphora involves ellipsis in the strict sense: the syntactic structure is present, assumed to be parallel to the associate, and it is simply not pronounced. The choice of the term, again, is influenced by the 70s theoretical universe, where ellipsis in the strict sense was treated as a deletion operation that applied at surface level.

The pro-form *hacerlo* 'do it' is a case of deep anaphora in this sense, as are pronominals like *lo* 'it' when they identify a predicate. Note in this example, taken from a podcast, that there is no identity requisite between the voice of the apparent associate and the voice of the pronoun: provided that the event is accessible discursively, speakers can reconstruct the event type that the pro-form identifies:

- (20) Recuerda suscribirte al podcast si no lo estás ya.
 remember to.subscribe to.the podcast if not it are already
 'Remember to subscribe to the podcast if you are not already <subscribed>'

The pronominal identifies the event 'subscribe', and the speaker recovers the right grammatical form, which is not parallel to the associate and in this case should be a participle, *suscrito*.

Hankamer & Sag (1976) provide a number of tests to differentiate between Deep and Surface Anaphora (beyond the property of allowing for pragmatic antecedents or not). These can be used, in principle, to differentiate cases of pronominals (empty or not) from cases of bona fide real ellipsis. As we will see in §2.2, some of these tests are also used to diagnose the presence of syntactic structure in the ellipsis site. In what follows, I will revise only the most solid ones.

2.1.1. Extraction

Deep anaphora involves a pronominal instead of an ellipsis site. In the ellipsis site, one may find syntactic structure parallel to the associate, but not with a pronominal. Consider the following contrast:

- (21) a. John agreed to <host a party>.
 b. John agreed <to host a party>.

The first is a case of surface anaphora, specifically VP-ellipsis (§4.2), while the second is a case of deep anaphora, specifically null complement anaphora (§4.4). We can test that this conclusion is correct through the following situation, that involves a pragmatic anaphor:

- (22) [John and Mary have been trying to convince Susan to host a party at her place. John is talking to Susan on the phone, trying to convince her, and Mary cannot hear what Susan says. John hangs up the phone and Mary asks:]
 a. *Did she agree to?
 b. Did she agree?

In VP-ellipsis, a bona fide case of surface anaphora, some material can be extracted from the ellipsis site, as expected if there is syntactic structure. As Spanish rejects pseudo-gapping (§4.3), I have to illustrate this with English:

- (23) Which party didn't she agree to host, and which party did she agree to <host ~~which party~~>?

In null complement anaphor, in contrast, that is not possible:

- (24) *Which party didn't she agree to host, and which party did she agree?

This is expected if the availability of pragmatic anaphors depends on a pronominal expression being in the alleged ellipsis site:

- (25) Did she agree *pro*?

2.1.2. Quantifier movement at LF

The following sentence is ambiguous, as expected:

- (26) A teacher talked to every student.

In one reading, there is one specific teacher that talked to each one of the students; in the second reading, the universal quantifier *every* takes scope over the existential quantifier *a* and the reading is that, for each student, there was a teacher, possibly a different one, that talked to him or her.

Consider now the following two sentences.

- (27) a. Un consejero también.
 a doctor too
 b. Un consejero también lo ha hecho.
 a counselor too it has done

The first one is a case of gapping, which is a bona fide case of ellipsis, and the second case involves a verbal pro-form *hacerlo*. Again, the first one can be shown to be surface anaphora because it does not allow the pragmatic antecedent that the second one allows, being deep anaphora.

- (28) [John and Mary are teachers. John is in his office, trying to update his webpage, and Mary walks into the office, and wants to tell John that one of the counsellors has also updated his webpage]
- a. *Un consejero también.
a counselor too
 - b. Un consejero también lo ha hecho.
a counselor too it has done

We can confirm that there is some syntactic structure in the surface anaphora case, through quantifier movement. The following sentence is also ambiguous, like the associate:

- (29) Un profesor habló con todos los estudiantes, y un consejero también.
a teacher talked to all the students, and a counselor too

Here, it is possible that different counsellors spoke to different students. The deep anaphora case, in contrast, only allows surface scope: the same counsellor must have talked to all the students.

- (30) Un profesor habló con todos los estudiantes, y un consejero también lo hizo.
a teacher talked to all the students, and a counsellor too it did

The reason is, again, that *hacerlo* is a verbal pronominal, not the spell out of the syntactic structure parallel to the associate. Therefore there is no universal quantifier within *hacerlo*, and therefore no option to obtain a different scope relation.

2.1.3. 'Ellipsis' types and deep and surface anaphora

Hankamer & Sag (1976) conclude that the following types of 'ellipsis' are cases of Deep Anaphora (that is, they are not ellipsis in the strict sense, because they involve pronominals):

- a) VP-ellipsis (see §4.2):
- (31) Juan puede hablar con el director, pero Pedro no debe <hablar con el director>
Juan may talk to the director, but Pedro shouldn't <talk to the director>
- b) Gapping structures (see §4.1), both strict gapping and stripping:
- (32) Juan habló con un amigo y María <habló> con un colega.
Juan spoke to a friend, and María <spoke> to a colleague.
- c) Sluicing (see §5.1):
- (33) Juan habló con alguien, pero no sé con quién <habló Juan>
Juan spoke to someone, but not know to whom <spoke Juan>

In contrast, they treat as Deep Anaphora (hence, as not involving ellipsis, but rather a pronominal expression) the following cases:

- a) Any case with an overt pro-form, such as the *hacerlo* form.
- (34) Juan habló con Pedro, pero María no lo hizo.
Juan talked to Pedro, but María not it did
- b) NP-ellipsis cases (§3.4)
- (35) Pedro tiene un coche y María tiene dos <coches>.
Pedro has a car and María has two <cars>
- c) Null complement anaphora (§4.4)
- (36) Juan quiere comprarse un piso, pero María se niega <a comprarse un piso>.
Juan wants to buy-SE a house, but María SE refuses <to buy a house>

In §3-§5 we will revise in detail these and other cases of apparent ellipsis, and will largely conclude that Hankamer & Sag (1976) were also right, but with some caveats: while deep anaphora cases display the full behaviour of absent syntactic structure at the ellipsis site, some of the cases classified by Hankamer & Sag (1976) as surface anaphora do not display all the elements expected if there was full syntactic structure throughout the whole derivation. In sections §6-§9 we will revisit this issue, and now we will move to the discussion of connectivity effects.

2.2. Anaphoric and cataphoric relations

One important piece of information that should be derived from the previous discussion is that ellipsis shows some similarities to coreference, to the point that, as we will see several times in this discussion, some types of ellipsis have been analysed as involving empty pronominals. Even the analyses that propose a deletion (or non-insertion) operation to explain ellipsis admit that there is some non-trivial relation between ellipsis and coreference.

This makes it expected, then, that the relation between the associate and the ellipsis site may be in some cases cataphoric and not anaphoric. Remember that anaphora and cataphora are originally terms that refer to relations between pronouns and their antecedents. In general, anaphoric cases are those where a pronominal expression takes its reference from a previous mention:

- (37) Juan_i dijo que pro_i estaba enfermo.
Juan said that pro was sick
'Juan said that he (= Juan) was sick'

Cataphora is the opposite situation, where the pronominal expression takes its referent from something that is mentioned later; this also receives the name of 'anticipatory reference'.

- (38) Me mostró algo, una araña muerta.
me showed something, a spider dead

The same two terms are applied also to cases of (bona fide) ellipsis:

- (39) Juan vio a alguien, pero no sé a quién <vio Juan>. Anaphora
 Juan saw DOM someone, but not know.1sg DOM who <saw Juan>
- (40) No sé a quién, pero Juan vio a alguien. Cataphora
 not know.1sg DOM who, but Juan saw DOM someone

Cataphora is much more restricted than anaphora in coreference relations, as noted by Bosque (1993). Principle C, that prohibits that a referential expression has an antecedent in the previous discourse, forbids cataphora when the two elements are arguments (Lebeaux 2010):

- (41) *pro_i dijo que Juan_i estaba enfermo.
 pro said that Juan was sick
 Intended: 'Juan said that he (= Juan) was sick'

Bosque (1993) restricts cataphoric relations to situations where the consequent of the expression is in a predicate position:

- (42) La e_i de Juan era una familia_i extraña.
 the e of Juan was a family strange
 'The family of Juan was a strange one'

These situations must be differentiated from situations where one has deep anaphora and the referent is obtained through the context:

- (43) Esta es la familia de Juan.
 this is the family of Juan
 'This (= the one you see here) is Juan's family'

The availability of cataphora in ellipsis can, therefore, be useful to differentiate between different analyses of ellipsis, particularly when the elided material is nominal. As predicates and clauses are not subject to binding theory, it is very difficult to drive any conclusions about the possible pronominal nature or not of these types of ellipsis when cataphora is available – although, as we will see, it may be useful for alternative analysis of ellipsis involving movement, see §8.5 below–. In contrast, in the case of nominal ellipsis the availability of cataphoric ellipsis when both the associate and the elided material are in argument position may be informative of whether an analysis involving an empty pronominal is plausible or not.

Consider in this regard the following example, also provided by Bosque (1993):

- (44) La de Juan conoció a la familia de Pedro.
 the of Juan met DOM the family of Pedro

As Bosque notes, that example is ungrammatical in absolute beginning of speech: that sentence could not be the opening sentence of a novel. The reason is that the coindexation in (45) is ungrammatical because it violates Principle C:

- (45) *La pro_i de Juan conoció a la familia_i de Pedro.

The full NP is in an argument position and is a referential expression, which means that it cannot have an antecedent that precedes it. If there is previous speech, there may be another feminine singular noun mentioned (which can be 'family' or some other noun) that licenses the

reference of the pronominal, but that excludes situations where one opens a text directly with that sentence.

Cataphoric and anaphoric relations can be used as tests that determine, therefore, how likely a pronominal analysis is in ellipsis types that involve nominal constituents. We will use them in §6 and §7, in the context of the analytic alternatives to ellipsis.

2.3. *Connectivity effects*

As we have advanced, a crucial question within the study of ellipsis is to what extent there is syntactic structure at the ellipsis site. Two out of three main theoretical positions (see §2.4) propose that at some level of representation the ellipsis site contains syntactic structure. The main family of arguments that has been proposed to sustain this position are known as 'connectivity effects'. In this section, the main connectivity effects that support a view where there is syntactic structure on the ellipsis site are presented.

2.3.1. Case

The case of the remnants in ellipsis must match the case that the remnant would have got if the rest of the syntactic structure was present.

- (46) Juan vio una película y Pedro, a su novia.
 Juan saw a movie, and Pedro, DOM his girlfriend

The remnant corresponding to 'his girlfriend' must appear with differential object marking (DOM), that Spanish accusative arguments must receive under certain conditions. Note that the associate in the first conjunct does not carry DOM.

The simplest explanation of this phenomenon is that the verb and the rest of the syntactic structure responsible for determining whether an argument gets DOM or not are indeed present in the ellipsis site at the point where case is assigned; hence, the idea is that the syntactic structure is present but unpronounced.

2.3.2. Preposition stranding

In general, languages that allow preposition stranding allow that arguments which otherwise would carry a preposition drop it as remnants.

- (47) John talked to Mary, but I don't know who else <John talked to>.

The availability of this stranding depends on whether preposition stranding is allowed also in interrogatives, which is the case for English.

- (48) Who did John talk to?

Spanish (with some caveats that we will discuss in §5.1) does not allow preposition stranding in interrogatives.

- (49) *¿Quién habló María con?
 who spoke María with?

Consequently, prepositions cannot be dropped from arguments in ellipsis:

- (50) Juan habló con María, pero no sé *(con) quién más <habló Juan>
 Juan talked to María, but not know with whom else <spoke Juan>

Again, this is expected if the ellipsis site contains syntactic structure and the remnant moves out of it with the usual operations, involving preposition stranding or not depending on the language.

2.3.3. Lower origin effects

Another argument is that sometimes the remnant is clearly a constituent that has been extracted from the ellipsis site, which automatically means that there must be some syntactic structure to base generate it.

- (51) Me pregunto quién parece estar enfermo, y quién no <parece estar enfermo>.
me wonder.1sg who seems to.be sick and who not <seems to.be sick>

It is standardly assumed that the subject of *parecer* 'seem', a raising verb, originates in the infinitival clause. The fact that the VP can be elided and still the low-generated subject is a remnant suggests that it has been extracted from the elided infinitival clause.

2.3.4. Selectional restrictions

If we assume no syntactic structure at some level of representation in (52), we must arrive to the conclusion that the complement of the second verb is a DP or pronoun.

- (52) Juan escribió algo, pero me pregunto qué <escribió Juan>.
Juan wrote something, but me wonder.1sg what

However, the verb *preguntarse* 'wonder' cannot select DPs.

- (53) a. Me pregunto qué hora es.
me wonder.1sg what time is
'I wonder what time it is'
b. *Me pregunto qué hora.
me wonder.1sg which time
'*I wonder the time'

If there is no covert syntactic structure in the ellipsis site, there is no principled way to say that the pronoun is actually a subordinate clause. If the syntactic structure is present, the pronoun is just the remnant within a complex clausal structure.

2.3.5. Sensitivity to islands

With some exceptions that we will note in §3, §4 and §5, the remnants of an ellipsis cannot come from within a syntactic island.

- (54) *Juan conoce a alguien que tiene amigos, y María <conoce a alguien que tiene>, novias.
Juan knows someone that has friends, and María <knows someone that has> girlfriends

The restriction is parallel to the one that is observed outside ellipsis, so the general proposal is that the same syntactic structure is present in both cases.

2.3.6. Polarity items

Polarity items need to be licensed by a positive or negative operator.

- (55) a. *No he visto a alguien.
not have seen DOM someone
b. He visto a alguien.
have seen DOM someone
- (56) a. *He visto a nadie.
have seen DOM anybody
b. No he visto a nadie.
not have seen DOM anybody

Thus, in a case of ellipsis like the following there must be negation active in the ellipsis site that licenses the polarity item before movement.

- (57) Juan dice que ha visto a alguien, pero Pedro dice que <no ha visto> a nadie.
Juan says that has seen DOM someone, but Pedro says that not has seen DOM anybody

Unless there is covert syntactic structure on the ellipsis site, the licensing of the negative polarity item is mysterious.

2.3.7. Agreement effects

A subordinate interrogative clause agrees with verbs and adjectives in the singular, masculine:

- (58) Es misterioso [qué personas lo han hecho].
is mysterious.m which persons it have done
'It is a mystery which people have done it'

In contrast, a nominal constituent, as expected, agrees fully in gender and number.

- (59) Son misteriosas esas personas.
are mysterious.f.pl those people
'Those people are mysterious'

Consider now the following sentence:

- (60) Lo han hecho algunas personas, pero es misterioso qué personas <lo han hecho>.
it have done some persons, but is mysterious which people it have done
'Someone has done it, but it is a mystery which people'

If the remnant ellipsis site contains a full interrogative clause where the *wh*-constituent is the remnant, the agreement case is explained. Otherwise, if there is no hidden structure, the agreement pattern is unexpected.

2.3.8. Variables

Quantifiers like *cada* 'each' show a strict requisite that they need to bind an individual variable:

- (61) a. *Cada chico trajo a María.
each boy brought DOM María
b. Cada chico trajo un amigo.
each boy brought a friend

In the following ellipsis case, which is grammatical, the proposal that there is syntactic structure on the ellipsis site explains where the variable is:

- (62) Cada chica trajo a un amigo, y cada chico también <trajo a un amigo>.
 each girl brought DOM a friend, and each boy too <brought DOM a friend>

2.3.9. Parasitic gaps

Parasitic gaps need to be licensed by movement of an element to a A'-position:

- (63) a. *John filed the report [without reading *e*].
 b. Which report did John file [without reading *e*]?

Yoshida et al. (2015) show that parasitic gaps can be licensed by the material that is assumed to be in the elided constituent:

- (64) The editor told me which book I must review [soon after receiving *e*], but I don't remember exactly [how soon after receiving].

Without syntactic structure on the ellipsis site, no constituent may have moved and therefore the parasitic gap should be impossible.

This test is difficult to apply to Spanish, where parasitic gaps are to begin with difficult.

- (65) ??¿Qué libro debo revisar [al poco de recibir *e*]?
 which book must revise at little of receiving?
 Intended: 'Which book must I revise just after receiving?'

2.3.10. Complementiser deletion

Spanish allows the deletion of some complementisers in subjunctive contexts:

- (66) Espero (que) te encuentres bien.
 hope.1sg that you find.2sg well
 'I hope that you feel fine'

The two sentences are not equivalent, though: with an overt complementiser, movement to the initial position is possible, but not without it.

- (67) Que te encuentres bien yo también lo espero.
 that you find.2sg well I also it hope
 (68) *Te encuentres bien yo también lo espero.
 you find.2sg well I also it hope

In correlation to this, the complementiser cannot be dropped in a fragment answer:

- (69) A: ¿Qué esperas?
 what hope.2sg?
 'What do you hope?'
 B: a. Que te encuentres bien <espero>
 that you find.2sg well
 'That you feel fine'

- b. *Te encuentres bien.
you find.2sg fine
'You feel fine'
- c. Espero te encuentres bien.
hope you find.2sg well

If there is no ellipsis in the answer, the complementiser can be out, but if there is ellipsis the complementiser must be present. This is expected if the clause has moved from inside the elided constituent, under the same restrictions as in other movement operations: consequently, the ellipsis site must contain syntactic structure.

All these connectivity effects constitute *prima facie* evidence for any analysis that proposes syntactic structure on the ellipsis site. However, things are not so simple; as we will see in §3-§5 below, there are also some unexpected facts for a theory where the ellipsis site contains purely standard syntactic structure.

Let us now move to the problem of recoverability.

2.4. Recoverability and vehicle change

As we have seen in §1 above, the identity requisite between the associate and the ellipsis site is not complete, as witnessed by cases like (70), where it is clear that one interprets a verb in the 2pl even though the associate is in the 1sg.

- (70) Yo traje manzanas y vosotros <trajisteis> peras.
I brought.1sg apples and you.pl <brought.2pl> pears
'I brought apples and you pears'

Since Fiengo & May (1994: 218) cases where the reconstruction of ellipsis involves a morphosyntactic form that is distinct from the one found in the associate are instances of vehicle change.

Vehicle change falls within what these authors call *Dependency theory*. In Dependency theory indices that determine the reference of a nominal are complex objects that contain an indexical type and an indexical token. The indexical type can be either dependent or independent. In the case of elided elements, which involve reconstruction through an associate, the indexical type is dependent, while in other instances it is independent.

The indexical token is the specific reference value. When the indexical type is dependent, the only accessible indexical values are those contained in the associate or in the remnants. Indexical independent elements, in contrast, may in principle access other indices.

The distinction between dependent and independent indexicality explains the contrast in (71):

- (71) a. Juan vio a su madre y María vio a su madre.
Juan saw DOM his mother and María saw DOM his mother
b. Juan vio a su madre, y María también <vio a su madre>.

Who did María see in the first sentence? There are three possibilities: María may have seen Juan's mother, she may have seen her own mother, or she may have seen anybody else's mother, the mother of someone who is not Juan or her.

- (72) a. Juan_i vio a su madre y María_j vio a su_i madre.
b. Juan_i vio a su madre y María_j vio a su_j madre.
c. Juan_i vio a su madre y María_j vio a su_k madre.

Thus: when the expression is overt, there is no dependence and it can take as an index either of the two referential expressions in the clause, or a third one that is contextually accessible. Contrast this with the ellipsis: in this case, the option that María sees her own mother or Juan's mother stay, but it is impossible to interpret that María sees someone else's mother.

- (73) a. Juan_i vio a su madre y María_j también <vio a su_i madre>.
 b. Juan_i vio a su madre y María_j también <vio a su_j madre>.
 c. *Juan_i vio a su madre y María_j también <vio a su_k madre>.

The first reading and the second one are well-established in the literature and they are called, respectively, the strict identity reading and the sloppy identity reading. We will get to these in §2.3.3 below.

2.4.1. Vehicle change (1): variables, pronouns, reflexives and referential expressions

One type of vehicle change involves the substitution of expressions containing the same referential index but differing on whether they are variables linked by an operator, pronouns, reflexive anaphors or referential expressions.

It is possible to have a referential expression in the associate, and a variable linked by an operator on the ellipsis site. This case is obtained when the remnant of the ellipsis involves a *wh*-element or relative pronoun associated to a referential expression in the associate:

- (74) Luis escogió a Pedro, al que_i María también <escogió t_i>.
 Luis chose DOM Pedro, DOM-the that María also <chose>

In this sentence, the ellipsis site must contain a variable that is related to the relative pronoun. The elided element takes as an associate a referential expression, *Pedro*. The same can be illustrated with a *wh*-element.

- (75) Pedro escogió a Carlos, pero me preguntó a quién_i <escogió t_i> María.
 Pedro chose DOM Carlos, but me wonder DOM who <chose> María

Another instance of vehicle change that is required involves treating as a pronominal expression the elided element associated to a referential expression. Consider the following sentence:

- (76) Pedro odia a Luis_i, y él_i cree que María también <odia a Luis_i>.
 Pedro hates DOM Luis, and he thinks that María too

The relevant reading here is the one where the second conjunct is interpreted as 'and Luis thinks that María also hates him'. The problem with this reading is that, if the reconstruction site contains the referential expression *Luis*, it should be impossible. *Luis* in the elided constituent is preceded and c-commanded by a pronoun *he*. This should be a violation of Principle C (Chomsky 1981), which states that referential expressions must be free.

In fact, the sentence in (77) does not allow coreference between the subject and the proper name:

- (77) *Él_i piensa que María odia a Luis_i.
 he thinks that María hates DOM Luis

Interpretable as 'Some male thinks that María hates Luis', not as *'Luis thinks that María hates him'

The interpretation of the ellipsis becomes unproblematic, however, if the ellipsis site is reconstructed as involving a pronoun, not a proper name, despite the fact that its associate is a proper name:

- (78) Pedro odia a Luis_i, y él_i cree que María también <le_i odia >.
Pedro hates DOM Luis, and he thinks that María too <him hates>

Consider now referential expressions and reflexives:

- (79) María lavó al niño porque él_i no quería <lavar-se_i>
María washed DOM the child because he not wanted <clean-himself>

In this case, to avoid the Principle C violation, one needs substitution of the referential expression with a reflexive pronoun, that would be linked in its governing category by the pronoun.

Of course, pronouns and anaphors can also participate in vehicle change:

- (80) María encontró a sus hermanos en la foto, pero ellos_i no <se_i encontraron en la foto>.
María found DOM her brothers on the photo, but they not
'María found her brothers on the photo, but they didn't find themselves'

And anaphors and variables can, too.

- (81) Pedro se eligió a sí mismo, pero no sé María a quién_i <eligió t_i>.
Pedro SE chose himself, but not know María DOM who
'Pedro chose himself, but I don't know who María chose'

2.4.2. Vehicle change (2): featural vehicle change

The second type of vehicle change involves the set of forms that compose a the inflectional paradigm of a word. As we have seen, the agreement in person and number of a verbal form can be distinct in the ellipsis site and in the associate. In some cases, the tense of the verb can also be distinct (82).

- (82) Juan vino ayer y María <viene> hoy.
Juan arrived yesterday and María <arrives> today

Finite vs. non-finite is also allowed.

- (83) Juan viene hoy, pero Juana no puede <venir>.
Juan arrives today, but Juana not can <come>

However, the range of inflectional forms that can vary under vehicle change depends on the type of ellipsis –under some hypothesis, it depends on whether the feature that is distinct is contained in a projection that is part of the elided material or not–, as we will discuss in detail in §3-§5.

2.4.3. Strict and sloppy identity

Even before Fiengo & May (1994) discussed vehicle change and proposed that it is an active mechanism for the reconstruction of ellipsis, it had been noted (Ross 1967, like most phenomena within ellipsis) that a sentence like (84) is ambiguous.

- (84) Juan visitó a su madre, y María también <visitó a su madre>.
 Juan visited DOM her mother, and María also visited his / her mother>

In the first reading, granted by the translation of *su* as 'his', María visits Juan's mother, who is the same person that Juan visits in the associate. This reading is called 'strict identity reading', because the associate and the constituent in the ellipsis site have the same referential index.

In the second reading, which is perhaps the most salient out of context, María visits her own mother. In this case, the nominal expression that is reconstructed corresponds to 'her mother'. This reading is called 'sloppy identity' reading because the identity of the reconstructed element and the associate is different, but conditioned by the syntactic-semantic context of each of the conjuncts (Bouton 1970, Partee 1975, Sag 1976, among many others).

In essence, as the reader has certainly noted already, the strict and sloppy readings within the context of vehicle change are trivially explained: in the sloppy reading, the possessive – which is anaphoric, as it is coindexed to *Juan*, within its same category– is also interpreted as anaphoric in the ellipsis, and is consequently coindexed to *María*. In the strict reading, the possessive is interpreted as pronominal, and therefore cannot be coindexed to *María*.

It is important to remember that vehicle change is a hypothesis about how indices work, which is framed within a theory of dependencies between referential indices. It is generally associated to theories that deny that ellipsis is mere deletion or non-insertion of what otherwise is a standard syntactic structure, because vehicle change presupposes that the semantic structure of the ellipsis site has to be reconstructed (not merely interpreted from a pre-existing syntactic structure). See in fact Oku (1998), Chung (2005) and Abels (2022) for syntactic alternatives to vehicle change, which we will not revise here.

2.5. Remnants and contrast

Ellipsis has been characterised, from a functional perspective, as a procedure that minimises lexical redundancy (Brucart 1999). This approach makes a prediction that, initially, seems to be right: the material that remains after ellipsis, the remnants, should be distinct in meaning and therefore establish some notion of 'contrast' in a broad sense with the equivalent material in the associate.

This notion of contrast can be interpreted in two ways: in a broad sense meaning only 'lexically distinct' and in a narrower way, as 'focalised element' (Rooth 1992). The general explanation that claims that ellipsis reduces lexical redundancy is fine provided that the remnants are distinct from the material in the associate, while the narrow version as focalised elements is based on a family of analyses involving paraphrases (§8.3), pronominal elements with LF-copying (§8.4) or deletion (§8.6), which argue that the remnants of ellipsis are merged in a high position where they receive focus interpretation, outside the ellipsis site.

The notion of contrast is typical of the remnants of some types of ellipsis: for instance, NP-ellipsis and gapping generally require remnants to be lexically distinct, and establish some kind of contrast in a set of alternatives with the associate:

- (85) a. Vinieron amigos de María, pero no vinieron <amigos> de Pedro.
 came friends of María, but not came <friends> of Pedro
 b. *Vinieron amigos de María, pero no se quedaron <amigos> de María.
 came friends of María, but not SE stayed <friends> of María

- (86) a. Luis le regaló flores a María y Pedro <le regaló flores> a Susana.
 Luis her gave flowers to María and Pedro <her gave flowers> to Susana
 b. *Luis le regaló flores a María y Pedro <le regaló flores> a María.
 Luis her gave flowers to María and Pedro <her gave flowers> to María

Sluicing (§5.1) is a case where the remnant is inherently focalised with respect to the elided material, as it corresponds to an interrogative element:

- (87) Ha venido alguien, pero no sé quién <ha venido>.
 has come someone, but not know.1sg who <has come>
 'Someone has come, but I don't know who'

These tendencies notwithstanding, the claim that remnants must be contrastive –even in a broad sense– has been falsified in the literature. For instance, Saab (2008) cites examples like the following, where part of the remnant material is lexically non distinct.

- (88) Juan ha visto las películas de Tarantino y yo también he visto las <películas> de Tarantino
 Juan has watched the movies of Tarantino and me too have seen the movies of Tarantino

The remnant 'of Tarantino' is identical in both cases, which constitutes a problem for the broad view and also for the narrow view, which predicts that the PP has been extracted from the NP to escape ellipsis.

There are several observations to make here, however: the polarity marker *también* 'too' seems to be necessary for grammaticality. This is a focus adverbial that involves a notion of 'contrast' in the sense that one needs to add an additional element of the same type to a set that has already been introduced by the first conjunct. Without it, absence of 'too' can still be saved if one assumes some kind of correction: (89) can be uttered in a context where someone has accused me of not having watched Tarantino's movies:

- (89) Juan ha visto las películas de Tarantino y yo he visto las <películas> de Tarantino.
 Juan has watched the movies of Tarantino and me have seen the movies of Tarantino

This corrective environment is necessary, and it obviously involves a notion of 'contrast'. The conclusion, then, seems to be that some contrast is necessary on the ellipsis site, but that contrast does not have to involve necessarily the remnants, which can be identical to the associate provided that the whole conjunct is, globally, contrastive. The data do not support the functional view of ellipsis as a procedure that reduces lexical redundancy, and they do not automatically validate a view where remnants appear on focus positions.

Having now revised the main tools and aspects to take into account in the study of ellipsis, let us now move to the empirical description.

3. Types of ellipsis in Spanish (1): nominal ellipsis

In this section and the next two we will revise the empirical properties in Spanish of all the ellipsis types that have been considered in the literature. This section will discuss all cases of ellipsis involving nouns or noun phrases; §4 will discuss cases of predicate ellipsis, with particular attention to verbs, and §5 discusses cases of clausal ellipsis.

One difficulty that is experienced when examining the empirical properties of the ellipsis classes is the proliferation of terminological choices and ellipsis types contained in the literature. The way in which we have chosen to organise the ellipsis types is through a *bona fide* distinction between arguments, predicates and propositions: nominal ellipsis can be more

or less associated to the ellipsis of arguments or parts of arguments; verbal ellipsis involves the ellipsis of predicates or part of predicates, and clausal ellipsis elides at least part of the functional clausal structure.

In the literature, beyond this classification –that is based on the nature of the elided constituent– there are terminological choices that refer to the syntactic context where the ellipsis happens: for instance, conjunction reduction refers to any type of ellipsis which happens within coordination, and comparative deletion is a term that puts together both argument and predicate ellipsis when it happens inside comparative clauses.

Sometimes, additional terms are used to avoid presupposing that the construction involves ellipsis (as opposed to movement or other syntactic operations). This is the reason why Right Node Raising (Ross 1967) is still used as a distinct term, even though one could describe it too as a type of argument ellipsis, or as a type of conjunction reduction (see §4.1.5).

In order to help the reader navigate this section and the following two, the following table presents the classification of types of ellipsis that we differentiate here. As can be seen, the main criterion is the nature of the elided element, and only secondarily, to differentiate subtypes when relevant, the nature of the remnants or the syntactic context where they occur are considered.

Table 1. Descriptive classification of ellipsis

General class	Type of ellipsis	Definitional properties	Subtype	Definitional properties of subtype
Nominal ellipsis	Argument ellipsis	A whole argument is omitted	Plain	Dependent on definiteness, topicality and genericity
			Comparative deletion of arguments	Restricted to comparative clauses
			Right Node Raising	Restricted to internal arguments, in coordination, with cataphoric licensing
	NP-ellipsis	Some constituents of the nominal remain		
	Noun modifier ellipsis	A modifier of a noun phrase is elided	Plain	Probably unattested in Spanish
			Comparative sub-deletion	A quantifier or degree element is omitted within a comparative clause
Predicate ellipsis	Gapping	A finite verb is omitted but at least one constituent of the VP remains	Strict gapping	Two or more verbal constituents remain
			Stripping	Only one verbal constituent remains
	VP-ellipsis	A non finite VP is fully omitted, not leaving any remnant behind	Pure VP-ellipsis	The non finite verb is selected by an auxiliary or an auxiliary remains
			Null complement anaphora	The non finite verb is selected by a lexical verb

			Modal complement ellipsis	The non finite verb is selected by a modal auxiliary, specifically
	Pseudo-gapping	A non finite VP is omitted under an auxiliary, but it leaves behind at least one remnant		
	Non verbal predicate ellipsis	The predicate is the compulsory non-verbal predicate with copulative verbs	Pure	Probably unattested
			Comparative deletion of predicates	Restricted to comparative clauses
	Absent verb structures	The verb is missing, and there is no associate; typical in proverbs		
Clausal ellipsis	Sluicing	A whole clause is elided, leaving behind only a wh-element	Merge sluicing	In the associate there is an indefinite expression that is parallel to the wh-expression
			Contrast sluicing	There is a definite expression that is parallel to the wh-expression
			Sprouting	There is no associate for the wh-expression
	Fragments	The utterance only consists of the alleged remnant	Fragment answers	The fragment is the answer to a previous question
			Other fragments	The fragment does not have a linguistic antecedent

Note that conjunction reduction is not mentioned here: this term refers rather to a syntactic context where different ellipsis types can appear, and not to a distinct type of ellipsis.

3.1. Argument ellipsis (1): cases which presumably involve an empty pronominal

One of the clearest illustrations of the difficulty of differentiating ellipsis in the strict sense from other analytical options involving the apparent interpretation of non-overt material but which do not involve a deletion operation is so-called argument ellipsis. Consider a sentence like the one in (90).

- (90) Juan trajo una botella a la fiesta y se llevó la pizza.
 Juan brought a bottle to the party and SE took the pizza

This sentence allows two interpretations that correspond to two distinct translations in English. In the first one, the sentence involves the coordination of two finite constituents which share a subject:

- (91) Juan [brought a bottle to the party] and [took the pizza].

No silent subject needs to be postulated in the second sentence. In the other English translation, which involves the coordination of two full clauses, English needs to add a subject pronoun that is coreferential with *Juan*, because English is not a pro-drop language.

(92) [Juan brought a bottle to the party] and [he took the pizza].

In a broad sense of 'ellipsis', taken as 'interpreting something that is not overtly expressed', the analysis of (92) above as involving coordination of two full clauses involves ellipsis for the subject argument. However, there are two options to analyse that, and only one of them would correspond to ellipsis in the strict sense.

In that analysis, the full argument is elided, as represented in (93):

(93) Juan trajo una botella a la fiesta y <Juan> se llevó la pizza.
 Juan brought a bottle to the party and <Juan> SE took the pizza

In the other analysis, which is more generally assumed for a pro-drop language like Spanish, the subject is in fact an empty pronominal element, *pro*.

(94) Juan_i trajo una botella a la fiesta y *pro*_i se llevó la pizza.
 Juan brought a bottle to the party and *pro* SE took the pizza

There are several reasons that justify that this second analysis, which does not involve any type of deletion operation, is to be preferred. First of all, subject argument ellipsis does not require the presence of an associate in the linguistic context, not in the same sentence and not in other sentences. This is particularly clear with first and second person subjects, where verbal inflection already identifies the referent as corresponding to the speaker or to the addressee:

(95) a. *pro* llegué anoche.
 pro arrived.1sg yesterday-night
 'I arrived yesterday night'
 b. *pro* has entregado las cartas.
 pro have.2sg delivered the letters
 'You have delivered the letters'

In third person subjects, as inflection is not always enough to identify their referent, previous mention in the speech is generally required, but it is also possible that there is no mention and the referent is recovered deictically from the context. In fact, (96) is perfectly natural in a context where the speaker points towards the person that is to be interpreted as the subject:

(96) *pro* ha terminado ya la tesis.
 pro has finished already the thesis
 'She has already finished her thesis'

This same access to extralinguistic contextual information is what licenses the omission of the object in many imperative contexts (RAE & ASALE 2009: §34.4n):

(97) Abre.
 open
 'Open (whatever door is salient in the context)'

Another reason to prefer a pro-drop analysis of these cases is that argument subject ellipsis is licensed by properties that do not play a role in other better-established cases of ellipsis, such as the indefiniteness of the referent. For instance, in third person plural contexts, subjects must be elided when they receive an existential interpretation, as in the following example:

- (98) pro llaman a la puerta.
 pro call.3pl to the door
 'Someone is knocking at the door'

Note also that in such cases the entity that corresponds to the argument must be often interpreted as animate, particularly human. Again, this is an effect that is not attested in bona fide cases of ellipsis involving deletion.

The same preference for indefinite or generic readings is necessary for other cases of argument ellipsis (in the broad sense), which suggests that here we are dealing with empty pronouns rather than with a specific type of deletion. This is the case, for instance, of indirect objects, which are implicit when they are interpreted as generic or indefinite; note also the compulsory human interpretation:

- (99) a. Esta clase de película gusta mucho.
 this type of movie likes a.lot
 'This type of movie is liked a lot (by everyone)'
 b. Juan entrega los trabajos a tiempo.
 Juan delivers the essays in time
 'Juan delivers his essays (to anyone) in time'

Direct objects are also subject to the preference, in the general case, for indefinite or generic interpretations:

- (100) a. Juan no ve.
 Juan not sees
 'Juan does not see (anything)'
 b. Pedro agobia.
 Pedro stresses
 'Pedro stresses (anyone)'
 c. Este cuchillo no corta.
 this knife not cuts
 'This knife does not cut (anything)'

The implicit nature of the direct object is facilitated by habitual or characterising readings of the verb, as in the examples above. When the object that is supposed to undergo ellipsis is definite, argument ellipsis is not allowed –although this has been documented in some varieties, see Palacios (2000):

- (101) A: ¿Has cocinado la tarta?
 have.2sg baked the cake?
 B: Sí, *(la) he cocinado.
 yes, it have baked

Bare nouns and other indefinites, in contrast, allow ellipsis:

- (102) A: ¿Tienes dinero?
 have.2sg money
 B: Sí, tengo.
 yes, have.1sg
- (103) A: ¿Encuentras algún problema?
 find.2sg any problem?
 B: Sí, encuentro.
 yes, find.1sg

Finally, when it comes specifically to the possible ellipsis of direct objects, lexical properties of the verb intervene, in a way that some verbs reject implicit objects even in generic interpretations.

- (104) a. Juan no comió.
 Juan not ate
 'Juan didn't eat anything'
 b. *Juan no devoró.
 Juan not devoured
 Intended: 'Juan did not devour anything'

The need to attend to idiosyncratic lexical properties for an argument to be silent is only attested in a bona fide type of ellipsis, null complement anaphora (§4.4), which however is generally treated as a case of deep anaphora involving an empty pronominal.

Taking stock, in the general case argument ellipsis does not seem to involve an ellipsis operation in the strict sense, involving deletion of the phonological material contained at some structural position. That said, however, some analyses of ellipsis have argued that deletion never happens and that any case of ellipsis is obtained through the merging of empty pronominals on the ellipsis site.

3.2. *Argument ellipsis (2): Right Node Raising*

The situation is potentially different with cases like (105), which involve the coordination of two clauses that apparently share the same object:

- (105) [Juan iba trayendo y María iba clasificando] los libros del salón.
 Juan went bringing and María went classifying the books of the living-room
 'Juan was bringing, and María was classifying, the books of the living room'

For historical reasons, such examples are known as Right-Node-Raising (RNR): Ross (1967), who coined the term, treated them as situations where one started with a coordination of two clauses sharing the same final constituent, followed by movement of that constituent to the right. In that analysis there is no proper ellipsis either, but the ellipsis analysis has been proposed, as we will now revise.

- (106) [[Juan brought ~~the books~~] and [Mary classified ~~the books~~]] the books.

In the cases where one assumes ellipsis as deletion, the structure would be as follows:

- (107) Juan brought <the books> and María classified the books.

Importantly, in this analysis the relation between the associate and the ellipsis site is cataphoric, not anaphoric (remember §2.2).

RNR is generally more natural when the second conjunct is pronounced as forming its own intonational phrase, which is sometimes represented with commas in the written speech:

- (108) a. ?Juan cocinó y María degustó un plato de macarrones.
 Juan cooked and María tasted a dish of macaroni
 b. Juan cocinó, y María degustó, un plato de macarrones.
 Juan cooked, and María tasted, a dish of macaroni

Another property that facilitates RNR is that the shared argument is phonologically and syntactically complex:

- (109) a. ??Juan recibió y María agasajó a Luis.
 Juan received and María flattered DOM Luis
 ??'Juan welcomed, and María flattered, Luis'
 b. Juan recibió y María agasajó a los embajadores de Italia.
 Juan received and María flattered DOM the ambassadors from Italy
 'Juan welcomed, and María flattered, the ambassadors from Italy'

3.2.1. Identity

Identity between the associate and the ellipsis site must be complete in RNR. For instance, when one conjunct requires a negative polarity item and the other one requires a positive polarity item, RNR is impossible:

- (110) *Juan no encontró, pero María identificó, {ningún / un} problema.
 Juan not found, but María identified, no / some problem

In fact, RNR does not allow that there is any remnant material in the ellipsis site which may have created some type of contrast between the two arguments:

- (111) a. *Juan recibió de París y María agasajó a los embajadores de Londres.
 Juan received from Paris and María flattered DOM the ambassadors from London
 Intended: 'Juan received the ambassadors from Paris and María flattered the ambassadors from London'
 b. *Juan recibió altos y María agasajó a los embajadores bajitos.
 Juan received tall and María flattered DOM the ambassadors short
 Intended: 'Juan received the tall ambassadors and María flattered the short ambassadors'

In contrast, the remnant material can be distinct, including the tense of the verb.

- (112) María clasificó ayer, y Juan luego registrará, los nuevos libros de la biblioteca.
 María classified yesterday, and Juan later will register, the new books of the library
 'María classified yesterday, and later Juan will register, the new books from the library'

Subordinate clauses can also undergo RNR:

- (113) Juan no sabe, y María no quiere discutir, si es posible hacerlo.
 Juan not knows, and María not wants to discuss, if is possible to do-it

'Juan doesn't know, and María doesn't want to discuss, if it is possible to do it'.

The conjunction, which is part of the remnant, can be of a different type in each case:

- (114) Juan no sabe si, pero María está convencida de que Pedro está enfermo.
 Juan not knows if, but María is convinced of that Pedro is sick

The syntax of these clauses is not entirely natural because the intonational break that should be between *que* 'that' and the associate enters in contradiction with the unstressed nature of *que*. In English such examples are reportedly more natural, given the phonological differences:

- (115) I was wondering whether, but I wouldn't dare to state that, you are right.

However, as expected, the shape of the associate and the shape of the ellipsis site must be identical. This includes the finite or non-finite nature of the complement, and its mood.

- (116) *Juan no cree que, pero María está segura de que Luis está enfermo.
 Juan not believes that, but María is certain of that Luis is sick

The reason for the ungrammaticality is that the first verb requires subjunctive (*no cree*), while the second selects indicative.

3.2.2. Licensing

RNR is restricted to coordination cases, but copulative coordination is not the only licenser:

- (117) a. María ordenó, pero Juan desordenó, las fichas de los libros.
 María organised, but Juan messed, the index-cards of the books
 b. O María compró o Pedro alquiló un piso en la playa.
 either María bought or Pedro rented a flat at the beach

Outside from coordination, comparative structures may license also RNR:

- (118) Juan ama más que María odia a los escritores de misterio.
 Juan loves more than María hates DOM the writers of mystery
 'Juan loves mystery writers more than María hates them'

Moltmann (1992), in fact, has argued that semantically comparison should be considered a particular subtype of coordination, which explains why comparatives license RNR but other bona fide subordinate clauses do not license it.

- (119) *Juan recibirá, si María agasaja, a los embajadores de Italia.
 Juan will.receive, if María flatters, DOM the ambassadors of Italy

RNR can involve all types of objects: bare nouns are allowed, as well as indefinite and definite ones.

- (120) a. Juan comprará, y María leerá, novelas contemporáneas de detectives.
 Juan will.buy, and María will.read, novels contemporary of detectives
 'Juan will buy, and María will read, contemporary detective novels'
 b. Juan comprará, y María leerá, cuatro novelas de detectives.

- Juan will.buy, and María will.read, four novels of detectives
 'Juan will buy, and María will read, four detective novels'
 c. Juan comprará, y María leerá, esas novelas de detectives.
 Juan will.buy, and María will.read, those novels of detectives
 'Juan will buy, and María will read, those detective novels'

In English and other languages that allow preposition stranding, unsurprisingly, the prepositional complement of verbs can undergo RNR:

- (121) I am not responsible for, or aware of, any misconduct.

Spanish, even though it lacks preposition stranding, also allows prepositional objects to undergo RNR:

- (122) Esto depende de, y está causado por, tu conducta.
 this depends of, and is caused by, your conduct

3.2.3. Other properties

Wilder (1999) notes that in RNR there cannot be any overt material between the shared argument and the canonical position where the argument would be expected to appear in the second conjunct. Adjuncts cannot intervene:

- (123) a. Juan agasajará mañana a los embajadores.
 Juan will.flatter tomorrow DOM the ambassadors
 b. *Juan recibió y María agasajará mañana a los embajadores.
 Juan received and María will.flatter tomorrow DOM the ambassadors

Arguments cannot intervene either:

- (124) *Juan compró y María trajo a la fiesta dos botellas de vino.
 Juan bought and María brought to the party two bottles of wine

Adjuncts that in principle affect both conjuncts cannot intervene either:

- (125) *Juan compró y María trajo ayer dos botellas de vino.
 Juan bought and María brought yesterday two bottles of wine

When it comes to the syntactic distance between the associate and the possible ellipsis site, sentences where the two conjuncts are not identical and the associate is within a subordinate clause, are in principle possible:

- (126) Juan compró, y Luis sugiere que María se comió, dos kilos de gambas.
 Juan bought, and Luis suggests that María se ate, two kilos of shrimps

Both conjuncts may be syntactically complex so that the associate and the ellipsis site are both within subordinate clauses:

- (127) Luis sugiere que Juan compró, y Marta sugiere que María se comió, dos kilos de gambas.
 Luis suggests that Juan bought, and Marta suggests that María ate, two kilos of shrimps

In contrast, it does not seem possible to find cases where the associate is in a main clause and the ellipsis site is in a subordinate clause. The following sentence, even without repetition of the conjunction, is interpreted with the second conjunct being also part of what Luis suggests:

- (128) #Luis sugiere que Juan compró, y María se comió, dos kilos de gambas.
 Luis suggests that Juan bought, and María SE ate, two kilos of shrimps
 'Luis suggests [that Juan bought and María ate two kilos of shrimps]'

However, weak or strong islands cannot intermediate between the ellipsis site and the associate:

- (129) *Juan compró, y Luis se pregunta si María se comió, dos kilos de gambas.
 Juan bought, and Luis wonders whether María SE ate, two kilos of shrimps
 (130) *Juan compró, y Luis lamenta que María se comiera, dos kilos de gambas.
 Juan bought and Luis regrets that María SE ate, two kilos of shrimps

To wrap up this discussion, it seems clear that RNR is a good candidate for a syntactic phenomenon instead of a semantic anaphoric relation, in the sense that it establishes a clear set of syntactic conditions on the remnants and the location of the ellipsis site with respect to the associate. However, as we will see in §8.5, these facts only show that RNR does not involve pronominal relations and some syntactic process is necessary: in addition to ellipsis, one could imagine that movement underlies this pattern. In §8.5, we will revise the arguments for and against ellipsis for RNR, and now we will move to NP-ellipsis, whose behaviour is markedly different.

3.3. Comparative deletion with arguments

In English, there is a particular type of ellipsis involving an argument that only happens within comparative clauses (which otherwise allow other types of ellipsis also licensed in other contexts).

- (131) a. John writes more books than Peter reads <N books>
 b. John talks to more people than Peter knows <N people>

Note that the argument that is interpreted is understood as appearing in a particular quantity, and it is taken to be a Quantifier phrase whose value is smaller (in these cases) to the associate in the main clause. A comparison is established between the quantity of the elided argument and the quantity of its associate.

This type of ellipsis is known as 'comparative deletion'. The standard analysis of comparative deletion in English goes back to Chomsky (1977) and involves movement followed by ellipsis. In a first step, the argument of the comparative clause, which has a null operator, moves to spec, CP within its clause:

- (132) John writes [QP more books [than [CP [Op books] Peter reads ~~Op books~~]]]

In a second step, the moved constituent undergoes ellipsis:

- (133) John writes [QP more books [than [CP <[Op books] Peter reads ~~Op books~~]]]

Spanish, however, is unable to undergo comparative deletion in comparatives headed by *que* 'that':

- (134) a. *Juan escribe más libros que Pedro lee <Op libros>
 Juan writes more books than Pedro reads
 b. *Juan habla con más gente que Pedro conoce <Op gente>
 Juan speaks to more people than Pedro knows

This contrasts sharply with the following sentences, where the verb has also been elided – and which fall within the general class of gapping structures, see §4.1 below–:

- (135) a. Juan escribe más libros que Pedro <escribe Op libros>
 Juan writes more books than Pedro <writes Op books>
 b. Juan habla con más gente que Pedro <habla con Op gente>
 Juan talks to more people than Pedro <talks to Op people>

As the verb is part of the remnant, obviously these sentences must have a different meaning from the intended comparative deletion cases, where the verb is part of the remnant and therefore may be contrastive.

Spanish, in contrast, can express the sentences that involve comparative deletion in English through a comparative that uses *de* 'of':

- (136) a. Juan escribe más libros de los que Pedro lee <Op libros>
 Juan writes more books of those that Pedro reads <Op books>
 b. Juan habla con más gente de la que Pedro conoce <Op gente>
 Juan talks to more people of that which Pedro knows <Op people>

Importantly, the clauses that are introduced by the preposition *de* 'of' have the shape of relative clauses with an elliptical antecedent (presumably involving NP ellipsis, see §3.4 below).

- (137) La gente que conoce Juan es simpática y la <gente> que conoce Pedro es antipática.
 the people that knows Juan is nice and the <people> that knows Pedro is unfriendly

This suggests that in Spanish the first part of the English comparative deletion operation happens, and the compared constituent moves to spec, CP, as in any other relative clause –I assume here, for the sake of the exposition, Kayne's (1994) analysis of relative clauses–.

- (138) [CP [Op gente] que Pedro conoce ~~Op gente~~]
 Op people that Pedro knows

The CP is embedded under a DP, and that nominal constituent is taken as the complement of the preposition without undergoing comparative deletion:

- (139) [DP la [CP [Op gente] que Pedro conoce ~~Op gente~~]]
 the Op people that Pedro knows

The argument is not deleted, then, but rather we have a relative clause structure with an operator, and the only material missing may correspond to NP ellipsis. Alternatively, if one

views the group *la que* as a complex relative pronoun, there is not even NP ellipsis and the derivation is as follow:

- (140) [CP [las que] Pedro conoce ~~las que~~]
 those Pedro knows

There is a piece of evidence in favour of this proposal, which proposes that Spanish lacks argument comparative deletion. First, Spanish does not allow dropping the antecedent of a relative clause when the relative starts with a preposition; in such cases, any pronominal antecedent must be overt. (141a) shows a case with a nominal antecedent, and we can see in (141b) that the antecedent cannot be dropped. In (141c) there is an overt pronominal antecedent.

- (141) a. La gente con la que Pedro habla es simpática.
 the people with the that Pedro talks is nice
 b. *Con los que Pedro habla es / son simpático(s).
 with those that Pedro talk is / are nice
 c. Aquellos con los que Pedro habla son simpáticos.
 those with those that Pedro talks are nice

The same pattern is reproduced with comparative clauses.

- (142) a. Luis conoce más gente de aquella con la que Pedro habla.
 Luis knows more people of that with the which Pedro talks
 'Luis knows more people than Pedro talks to'
 b. *Luis conoce más gente de con la que Pedro habla.
 Luis knows more people of with the which Pedro talks

Thus, it seems that Spanish does not have comparative deletion in any case involving an argument: apparent cases are relative clauses involving either cases of NP ellipsis or complex relative pronouns.

3.4. NP-ellipsis

NP-ellipsis (Pullum 1975, Suñer & Yépez 1988, Kester 1996, Giannakidou & Stavrou 1999, Leonetti 1999, Depiante & Masullo 2001, Llombart-Huesca 2002, Panagiotidis 2002, Ticio 2003, Kornfeld & Saab 2004, 2005; Saab 2008, 2010; Eguren 2010) is the label assigned to structures where the ellipsis site contains only a bona fide noun, and the possible determiners, modifiers and complements of that noun are expressed overtly.

- (143) a. el libro de Juan y el libro de Carlos
 the book of Juan and the book of Carlos
 b. el libro de Juan y el <libro> de Carlos
 the book of Juan and the book of Carlos
 'Juan's book and the one of Carlos'

This ellipsis has been claimed to require that there is a contrastive element in the remnant at the ellipsis site (Eguren 2010); consequently, if the material left by noun ellipsis is completely identical to the one of the associate, the ellipsis is impossible, as one expects from the fact that the coordination is, already without ellipsis, felt as non-informative. However,

some material in the remnant can be identical to the associate provided that at least another constituent is contrastive.

- (144) a. *la habitación roja de María y la <habitación> roja de María
the room red of María and the <room> red of María
b. la habitación roja de María y la <habitación> roja de Marta
the room red of María and the <room> red of Marta

However, Saab (2008) and Saab & Lipták (2015) note that NP-ellipsis is possible also with non-contrastive remnants:

- (145) Juan ha leído los cuentos de Cortázar y yo también he leído los <cuentos> de Cortázar.
Juan has read the tales of Cortázar and I also have read the <tales> of Cortázar

This will have strong implications for the analysis of this type of ellipsis, as we will see later in §8.7.

3.4.1. Identity

When it comes to the identity of the associate and the ellipsis site, Spanish displays an asymmetry between mismatches concerning gender and those concerning number. In principle, a singular associate allows a plural ellipsis site, and vice versa:

- (146) a. el libro de Juan y los <libros> de Carlos sg-pl
the book of Juan and the <books> of Carlos
b. los libros de Juan y el <libro> de Carlos pl-sg
the books of Juan and the <book> of Carlos

Note that the overt determiner displays number inflection, and allows the identification of the number of the elliptical noun that needs to be recovered. In contrast, even with determiners that display gender inflection, mismatches between masculine and feminine are not natural in either direction:

- (147) a. ??el hermano de Juan y la <hermana> de María m-f
the brother of Juan and the <sister> of María
b. ??la hermana de Juan y el <hermano> de María f-m
the sister of Juan and the <brother> of María

The ban on gender mismatches is stronger when the nouns involved express gender lexically, with different roots, as in pairs like *yerno* 'son-in-law' and *nuera* 'daughter-in-law' or *padre* 'father' and *madre* 'mother'.

- (148) a. *el yerno de Juan y la <nuera> de María
the son-in-law of Juan and the <daughter-in-law> of María
b. *el padre de Juan y la <madre> de María
the father of Juan and the <mother> of María

This effect is bizarre for theories where parallelism does not have to be defined at the level of the lexical elements used, as presumably at a syntactic level the cases of nouns that define gender with different roots and those that define it through endings should be identical.

Consider now parallelism when it comes to the determiner used. Spanish allows mismatches in either direction with respect to the indefinite or definite nature of the determiner:

- (149) a. un novio de Juan y el <novio> de María ind-def
 a boyfriend of Juan and the <boyfriend> of María
 'one of Juan's boyfriends and the (only) one of María'
 b. el novio de María y uno <novio> de Juan def-inf
 the boyfriend of María and a <boyfriend> of Juan
 'the boyfriend of María and one of the boyfriends of Juan'

3.4.2. Licensing

There are two relevant aspects of the licensing of the ellipsis site in noun ellipsis: the types of determiners that license the ellipsis and the types of complements and modifiers that are compatible with it.

Let us start with the first dimension. Contra Brucart (1999: 2856), noun ellipsis can be licensed without determiners provided that the antecedent also lacks a determiner. Therefore, a bare noun can be an appropriate associate for noun ellipsis, as in (150):

- (150) No tengo caramelos de menta pero tengo <caramelos> de fresa.
 not have.1sg candies of mint but have.1sg <candies> of strawberry
 'I don't have mint candies, but I have strawberry ones'

It is difficult to determine whether in examples such as (xx) we have noun ellipsis or coordination of two PPs, but in the example above it is clear that ellipsis has taken place.

- (151) caramelos de menta y de fresa
 candies of min and of strawberry

Both the definite and the indefinite article license ellipsis. The definite article licenses noun ellipsis without undergoing any change, as can be seen in the following examples, where the definite article is identical in the two coordinates:

- (152) a. el hermano de Juan y el <hermano> de María
 the brother of Juan and the <brother> of María
 b. la hermana de Juan y la <hermana> de María
 the sister of Juan and the <sister> of María
 c. los hermanos de Juan y los <hermanos> de María
 the brothers of Juan and the <brothers> of María
 d. las hermanas de Juan y las <hermanas> de María
 the sisters of Juan and the <sisters> of María

In contrast, the indefinite article shows a distinction between the masculine singular form with and without noun ellipsis: in the first case, the gender marker *-o* must be present, which is ungrammatical without noun ellipsis.

- (153) a. un hermano de Juan y un-o <hermano> de María
 a brother of Juan and an-m <brother> of María
 b. un-a hermana de Juan y un-a <hermana> de María
 a-f sister of Juan and a-f <sister> of María
 c. unos hermanos de Juan y unos <hermanos> de María

- some brothers of Juan and some <brothers> of María
 d. unas hermanas de Juan y unas <hermanas> de María
 some sisters of Juan and some <sisters> of María

Hence, this can be used as a test for noun ellipsis, at least when we have masculine singular nouns. In (154a), we can be certain that we have noun ellipsis, and the colour term is an adjective modifying it (note that it can have a degree adverb), while in (154b) there cannot be ellipsis, the colour term does not allow degree modification and it is presumably categorised as a noun itself.

- (154) a. un-o (muy) rojo
 one-m (very) red
 b. un (*muy) rojo
 one (very) red

The other types of determiners and quantifiers that license noun ellipsis are the following:

a) Demonstratives agreeing in gender and number:

- (155) a. este alumno rubio y este <alumno> moreno
 this student blonde and this <student> dark-haired
 b. esa doctora alta y esa <doctora> baja
 that doctor tall and that <doctor> short
 c. aquellos perros salvajes y aquellos <perros> domesticados
 those dogs wild and those <dogs> tamed

b) All existential quantifiers that contain *un* as its last element, as well as *otro* 'another':

- (156) a. los amigos de Juan y algunos <amigos> de María
 the friends of Juan and some <friends> of María
 b. Tengo libros de Juan, pero ninguno <libro> de María
 have.1sg books of Juan but none <book> of María
 'I have books by Juan, but none by María'
 c. un amigo de Juan y otro <amigo> de María
 a friend of Juan and another <friend> of María

c) All evaluative quantifiers:

- (157) a. muchos amigos de Juan y pocos <amigos> de María
 many friends of Juan and few <friends> of María
 b. bastantes amigos de Juan y suficientes <amigos> de María
 many friends of Juan and enough <friends> of María
 c. algunos amigos de Juan y demasiados <amigos> de María
 some friends of Juan and too-many friends of María

d) Comparative quantifiers:

- (158) a. muchos amigos de Juan y menos <amigos> de María
 many friends of Juan and fewer <friends> of María
 b. pocos amigos de Juan y más <amigos> de María

few friends of Juan and more <friends> of María

e) The free-choice determiner *cualquier*, with the caveat that in the singular the ending *-a* must appear in ellipsis cases. That ending is ungrammatical in the case of overt nouns.

- (159) a. *cualquier-a* (muy) rojo
 any-A (very) red
 'any red object'
 b. *cualquier* (*muy) rojo
 any (*very) red
 'any type of red'

(160) *cualquier* amigo de Juan y *cualquier-a* <amigo> de María
 any friend of Juan and any-A <friend> of María

f) Cardinal numerals, which never agree in gender or number with the noun:

- (161) a. tres amigos de Juan y dos <amigos> de María
 three friends of Juan and two <friends> of María
 b. mil amigos de Juan y cien <amigos> de María
 thousand friends of Juan and hundred <friends> of María

In contrast, noun ellipsis is not licensed by the following determiners and quantifiers:

a) The demonstrative *tal* 'such', which accompanies nouns and does not agree in gender with them.

(162) **tal* problema irresoluble y *tal* <problema> sencillo
 such problem unsolvable and such <problem> simple

b) Prenominal possessives, irrespectively of whether they agree in gender and number with the noun or not.

- (163) a. **mi* libro y tu <libro>
 mi book and your <book>
 Intended: 'my book and yours'
 b. **tu* amiga y su <amiga>
 your friend and his <friend>
 Intended: 'your friend and his'
 c. **sus* hijos y vuestros <hijos>
 her sons and your sons
 Intended: 'her sons and yours'

Note that here one cannot claim that possessives do not license the ellipsis site because of the absence of gender and number inflection, as possessors corresponding to 2pl and 1pl do agree in gender and number and still they do not license the ellipsis.

- (164) a. *nuestr-a-s* *hij-a-s*
 our-f-pl daughter-f-pl
 b. *vustr-o-s* *gat-o-s*
 your-m-pl cat-m-pl

Compulsorily, possessives around the ellipsis site must be those used in postnominal contexts, and always accompanied by an independent determiner:

- (165) un amigo suyo
 a friend hers
 'a friend of hers'
- (166) a. mi hermana y una <hermana> suya
 my sister and a <sister> his
 'my sister and a sister of his'
- b. tu jefe y el <jefe> mío
 your boss and the <boss> mine

c) Universal quantifiers. Even though apparently *todos* 'every' seems to license noun ellipsis in (167), note that the resolution of the ellipsis also involves a definite article, which we have independently seen can license noun ellipsis.

- (167) algunos amigos de Juan y todos los <amigos> de María
 some friends of Juan and all the <friends> of María

Singular *todo* 'every', which comes without the definite article, cannot license noun ellipsis.

- (168) *todo amigo de María y todo <amigo> de Juan
 every friend of María and every <friend> of Juan

The same property applies to *cada* 'each' and *ambos* 'both'.

- (169) a. *cada amigo de María y cada <amigo> de Juan
 each friend of María and each <friend> of Juan
- b. *ambos padres de María y ambos <padres> de Juan
 both parents of María and both <parents> of Juan

A preliminary generalisation is that the licensing determiners cannot be equated with the determiners that display gender and number agreement, so if recoverability requires agreement that agreement cannot be the one that is manifested morphologically in an overt way.

The second dimension of licensing refers to the PPs and adjectives that can appear as modifiers. Let us start with PPs.

The indefinite article is more flexible than the definite one in terms of which prepositions are allowed adjacent to the ellipsis site. With the indefinite article, all prepositions are allowed in noun ellipsis.

- (170) a. una dedicatoria a su novia y una <dedicatoria> a su madre
 a dedication to his girlfriend and a <dedication> to his mother
- b. una representación ante el rey y una <representación> ante la reina
 a performance before the king and a <performance> before the queen
- c. un lugar bajo el árbol y un-o <lugar> bajo la ventana
 a place under the tree and one-m <place> under the window
- d. un café solo y un-o <café> con leche
 a coffee dark and a-m <coffee> with milk
- e. una ley contra las drogas y una <ley> contra el terrorismo

- a law against the drugs and one <law> againsts the terrorism
- f. un amigo de Juan y un-o <amigo> de María
a friend of Juan and one-m <friend> of María
- g. una salida desde Madrid y una <salida> desde Barcelona
an exist from Madrid and an <exit> from Barcelona
- h. una fiesta en el parque y una <fiesta> en la playa
a party in the park and a <party> on the beach
- i. una discusión entre dos y una <discusión> entre tres
an argument between two and one <argument> among three
- j. un viaje hacia la fama y un-o <viaje> hacia la perdición
a trip towards the fame and a-m <trip> towards perdition
- k. una maleta hasta ocho kilos y una <maleta> hasta veintitrés kilos
a suitcase up-to eight kilos and a <suitcase> up-to twenty-three kilos
- l. un poema para María y un-o <poema> para Luis
a poem for María and a-m <poem> for Luis
- m. un paseo por el parque y un-o <paseo> por la ciudad
a walk through the park and a-m <walk> through the city
- n. un problema según María y un-o <problema> según Juan
a problem according-to María and a-m <problem> according-to Juan
- ñ. un hombre sin dinero y un-o <hombre> sin dignidad
a man without money and a-m <man> without dignity
- o. un texto sobre matemáticas y un-o <texto> sobre historia
a text about mathematis and a-m <text> about history
- p. una caída tras la cena y un-a <caída> tras el entrenamiento
a fall after the dinner and a <fall> after the training

In contrast, the definite article only allows the preposition *de* 'of'. Any other preposition is ungrammatical.

- (171) a. *una dedicatoria a su novia y la <dedicatoria> a su madre
a dedication to his girlfriend and the <dedication> to his mother
- b. *una representación ante el rey y la <representación> ante la reina
a performance before the kind and the <performance> before the queen
- c. *un lugar bajo el árbol y el <lugar> bajo la ventana
a place under the tree and the <place> under the window
- d. *un café solo y el <café> con leche
a coffee dark and the <coffee> with milk
- e. *una ley contra las drogas y la <ley> contra el terrorismo
a law against the drugs and the <law> againsts the terrorism
- f. un amigo de Juan y el <amigo> de María
a friend of Juan and the <friend> of María
- g. *una salida desde Madrid y la <salida> desde Barcelona
an exist from Madrid and the <exit> from Barcelona
- h. *una fiesta en el parque y la <fiesta> en la playa
a party in the park and the <party> on the beach
- i. *una discusión entre dos y la <discusión> entre tres
an argument between two and the <argument> among three
- j. *un viaje hacia la fama y el <viaje> hacia la perdición
a trip towards the fame and the <trip> towards perdition
- k. *una maleta hasta ocho kilos y la <maleta> hasta veintitrés kilos

- a suitcase up-to eight kilos and the <suitcase> up-to twenty-three kilos
- l. *un poema para María y el <poema> para Luis
a poem for María and the <poem> for Luis
- m. *un paseo por el parque y el <paseo> por la ciudad
a walk through the park and the <walk> through the city
- n. *un problema según María y el <problema> según Juan
a problem according-to María and the <problem> according-to Juan
- ñ. *un hombre sin dinero y el <hombre> sin dignidad
a man without money and the <man> without dignity
- o. *un texto sobre matemáticas y el <texto> sobre historia
a text about mathematics and the <text> about history
- p. *una caída tras la cena y la <caída> tras el entrenamiento
a fall after the dinner and the <fall> after the training

The reason for this restriction is unclear. It has been argued that the cause has to be tracked back to *el* 'the' being a phonological clitic, while *un* 'a' is not, but this does not really explain why *de* 'of' should behave in a special way. Moreover, the preposition *según* 'according to' is phonologically robust, and still *el* 'the' is ungrammatical with it.

When it comes to adjectives, the strongest restriction is that adjectives are compatible with the ellipsis only when they are in postnominal position. This means that relational adjectives license the ellipsis (172), and also qualifying adjectives when they are restrictive (173):

- (172) a. un problema político y un-o <problema> económico
a problem political and a-m <problem> economic
- b. un ministro francés y un-o <ministro> alemán
a minister French and a-m <minister> German
- c. los trabajos manuales y los <trabajos> intelectuales
the works manual and the <works> intellectual
'hand works and intellectual works'
- (173) a. la amiga alta de María y la <amiga> baja de Juan
the friend tall of María and the <friend> short of Juan
- b. un jersey rojo y un-o <jersey> rosa
a sweater red and a-m <sweater> pink
- c. un hombre íntegro y un-o <hombre> corrupto
a man honest and a-m <man> corrupt

Contrast these cases with the following ones:

- (174) a. *la fría nieve de Tromsø y la blanca <nieve> de Rusia
the cold snow of Tromsø and the white <snow> of Russia
- b. *el afortunado amigo de Juan y el pobre <amigo> de María
the fortunate friend of Juan and the poor <friend> of María

Non-intersective adjectives that express mood and time tend to be prenominal, and that means that they should not license noun ellipsis. This is true for some of them:

- (175) *un seguro problema y un-o probable <problema>
a certain problem and a-m probable <problem>

However, many mood and time adjectives that appear in prenominal position seem to license noun ellipsis, or at least allow it marginally:

- (176) a. ?el actual ministro y el previo <ministro>
 the current minister and the previous <minister>
 b. un asesino confeso y un-o presunto <asesino>
 a murderer confessed and an-m alleged <murderer>
 c. el anterior presidente y el próximo <presidente>
 the previous president and the next <president>

Finally, nominal apposition does not license noun ellipsis:

- (177) a. *el escritor Jorge Luis Borges y el <escritor> Julio Cortázar
 the writer Jorge Luis Borges and the <writer> Julio Cortázar
 b. *el verbo 'andar' y el <verbo> 'salir'
 the verb 'andar' and the <verb> 'salir'

3.4.3. Other properties

The syntactic distance between the associate and the ellipsis site can be quite big in the case of noun ellipsis, and islands can intermediate between the two elements. The ellipsis site can be coordinated directly with the associate:

- (178) el hermano de Juan y el <hermano> de María
 the brother of Juan and the <brother> of María

It can be contained within the syntactic constituent where the associate is a head:

- (179) Tu informe sobre el <informe> de Juan me parece injusto.
 your report about the <report> by Juan me seems unfair
 'Your report about Juan's report seems unfair to me'

The associate and the ellipsis site can be clause mates.

- (180) Mi hermano se encontró con el <hermano> tuyo.
 my brother SE found with the <brother> yours

However, and unlike other types of ellipsis that we will describe later, the associate and the clause mate may be in different sentences, both in coordination and subordination:

- (181) a. Juan disfrutó el libro de Marta, pero odió el <libro> de Luis.
 Juan enjoyed the book of Marta, but hated the <book> of Luis
 b. El libro de Juan afirma que el <libro> de Pedro está lleno de mentiras.
 the book of Juan maintains that the <book> of Pedro is full of lies.

It is even possible to have the ellipsis site within a syntactic island that isolates it from the syntactic constituent that contains the associate.

- (182) a. Juan traerá el libro de Marta [si no encuentras el <libro> de Luis].
 Juan will.bring the book of Marta if not find.2sg the <book> of Luis
 'Juan will bring Marta's book if you don't find the one of Luis'

- b. Pedro le dio el libro de Marta a un hombre [que leyó el <libro> de Luis].
 Pedro him gave the book of Marta to a man that read the <book> of Luis
- c. Ana vendió el libro de Marta [al encontrar el <libro> de Luis].
 Ana sold the book of Marta at.the find the <book> of Luis
 'Ana sold Marta's book when she found Luis' book'

Finally, as in the cases that we saw of possible subject ellipsis, noun ellipsis can be licensed without any linguistic mention, in a context where the speaker deictically signals the referent. For instance, (183) is possible in a case where the speaker is in a shop and is pointing towards the jacket that he wants:

- (183) Quiero esa.
 want.1sg that
 'I want that one'

3.5. *Absence of modifier and complement ellipsis in NPs*

In contrast to NP ellipsis, which is clearly attested, possible ellipsis of noun modifiers and prepositional complements is in principle not attested in Spanish.

Consider first adjectives. In the following example, the same adjective repeats in the two conjuncts in (184a), and as expected we interpret that both the apple and the suitcase are red. In contrast, in (184b) and (184c), we do not interpret that the NP that lacks the adjective is also red. If we want to mention the adjective once and make it refer to both nouns, plural inflection is required (184d), which shows that the adjective modifies a conjoined NP, and there is no ellipsis.

- (184) a. la manzana roja y la cartera roja
 the apple red and the suitcase red
- b. la manzana roja y la cartera
 the apple red and the suitcase
- c. la manzana y la cartera roja
 the apple and the suitcase red.sg
- c. la manzana y la cartera rojas
 the apple and the suitcase red.pl

Thus, there is no ellipsis of adjectives within the DP, something that may relate to recoverability: nouns agree with determiners and other elements, but adjectives do not trigger agreement with any other entity. The idea is that there is no syntactic node that can elide the adjective to the exclusion of the rest of the NP.

The same goes for determiners, in a broad sense that includes quantifiers and determiners. The interpretation of (185a) and (185b) is markedly different, which shows that the second cannot interpret the possessive that is not overt.

- (185) a. mi amigo y mi colega
 my friend and my colleague
- b. mi amigo y colega
 my friend and colleague

In the first coordination we have two referents: someone that is my friend and someone that is my colleague. In the second coordination we have one referent: someone that is at the same time my friend and my colleague. The same contrast is established in the following cases:

- (186) a. el amigo y el colega
the friend and the colleague
b. el amigo y colega
the friend and colleague
- (187) a. este amigo y este colega
this friend and this colleague
b. este amigo y colega
this friend and colleague

The same observation can be done with cardinal numerals:

- (188) a. dos libros y dos cartas
two books and two letters
b. dos libros y cartas
two books and letters

There is no way to force the reading that in the second coordination the number of letters is exactly two. These cases, where the quantifier cannot be deleted, contrast with cases of comparative sub-deletion, that we will revise in §3.6 below.

When it comes to prepositional complements, the pattern is the same: PPs cannot be elided.

- (189) a. el libro de María y el coche de María
the book of María and the car of María
b. el libro de María y el coche
the book of María and the car
c. el libro y el coche de María
the book and the car of María

In the first sentence, we interpret that both the book and the car belong to María, but in the second we do not interpret necessarily that the car belongs to María. The sentence in (189c) is ambiguous, because PPs do not overtly agree: the PP may combine only with the second conjunct, or with the coordination of both NPs.

Given this result, it seems that in cases like (190), where it is easy to interpret that the second conjunct is also related to the entity denoted by the PP in the first conjunct, do not involve ellipsis.

- (190) a. el hijo de Juan y el padre
the son of Juan and the father
b. el brazo de Juan y la mano
the arm of Juan and the hand

In these cases, even though the PP is only in the first conjunct, we interpret the second conjunct as naturally referring to Juan's father and Juan's hand, respectively. Note, however, that the nouns in the second conjunct are relational and establish a part-whole or kinship relation with another entity. It is impossible to make them definite without assuming a second entity taken as a point of reference, and the natural semantic interpretation is that the second entity is Juan, who has just been mentioned. In the absence of a relational noun, that possessor is not interpreted as coreferential to the first PP.

3.6. Absence of ellipsis within the AP

In parallel to NP cases, PP complements of adjectives and modifiers of adjectives cannot be elided either.

The interpretation of two adjectives with their respective degree modifier is, as expected, one where each adjective has the same equivalent degree value.

(191) muy alto y muy gordo
very tall and very fat

If only the second adjective carries a degree modifier, there is no way to interpret that modifier in the first conjunct.

(192) alto y muy gordo
tall and very fat

When the degree modifier is present next to the first conjunct, the sequence is ambiguous between a reading where it affects both adjectives or only the first. The two readings are formally indistinguishable, but it is generally assumed that the interpretation where the second conjunct is also modified by the degree adverb is obtained through coordination; the degree adverb combines with the coordination of the two adjectives.

(193) muy alto y gordo
very tall and fat

A potential way of determining the absence of degree ellipsis in these elements is through a sequence like (194):

(194) algo más alto y mucho más gordo
a.bit more tall and much more fat
'slightly taller and much fatter'

Eliding the degree adverb in the second conjunct is ungrammatical. However, this may be due to an independent restriction that forces the modifier of the degree adverb to be elided together with it.

(195) *algo más alto y mucho <más> gordo
a.bit more tall and much <more> fat

The impossibility of eliding the degree modifier of an adjective contrasts with comparative sub-deletion cases (§3.6), where it cannot be overt.

When it comes to PPs, like in the case of relational nouns, their interpretation is available only if the PP is an argument of the adjective, as in the following cases.

(196) a. paralelo a eso y equivalente (a eso)
parallel to that and equivalent (to that)
b. igual a Juan pero distinto (de Juan)
equal to Juan but different (from Juan)

When the complement of the adjective is not selected, it cannot be interpreted unless overt, as in (197a) vs. (197b):

- (197) a. sincero con todos y amable con todos
 sincere with everybody and kind with everybody
 b. sincero con todos y amable
 sincere with everyone and kind

3.7. Comparative sub-deletion

A special case of quantifier and degree ellipsis, which is otherwise impossible in Spanish, are the cases of so-called comparative sub-deletion, which are illustrated for English as follows:

- (198) a. He writes more books than I write <Q> articles.
 b. She is broader than I am <Deg> tall.

In these cases, we must necessarily interpret a quantifier and a degree expression in the comparative clause, because what we are comparing is (respectively) the number of books that he writes with the number of articles that I write and the degree of breadth that she has with the degree of height that I have. However, the syntactic constituents that correspond to the second quantity or degree must be silent:

- (199) a. *He writes more books than I write few articles.
 b. *She is broader than I am very tall.

Spanish does have comparative sub-deletion, in contrast to comparative deletion:

- (200) a. Escribe más libros que yo escribo artículos.
 writes more books than I write articles
 b. Es más ancha que yo soy alto.
 is more broad than I am tall

Like in English, the quantifier or degree expression must be silent.

- (201) a. *Escribe más libros que yo escribo pocos artículos.
 writes more books than I write few articles
 b. *Es más ancha que yo soy muy alto.
 is more broad than I am very tall

This is already a weird property from the perspective of ellipsis, which is generally not forced as an operation –except for the possible island infractions–.

Comparative sub-deletion has some relevant properties: first of all, the ellipsis site can be embedded in a subordinate clause in English.

- (202) Mary met more linguists than we thought you said you met <Q> linguists.

The translation of these examples is not completely natural, and there is a tendency to place the noun that contains the gap in first position.

- (203) María conoció a más lingüistas que biólogos pensamos que nos dijiste que conociste tú.
 María met DOM more linguists than biologists think.1pl that us told.2sg that met.2sg you

Comparative sub-deletion is sensitive to islands in Spanish, with or without displacement:

- (204) a. Tengo más amigos que enemigos dices que tiene ese chico.
 have.1sg more friends than enemies say.2sg that has that boy
 'I have more friends than you say that this boy has'
 b. *Tengo más amigos que enemigos conoces a un chico que tiene.
 have.1sg more friends than enemies know.2sg a boy that has
 *'I have more friends than you know a boy that has'
 c. *Tengo más amigos que conoces a un chico que tiene enemigos.
- (205) a. Tengo más amigos que enemigos esperas que tendrás.
 have.1sg more friends than enemies hope.2sg that will.have
 'I have more friends than you expect to have enemies'
 b. *Tengo más amigos que enemigos te pondrás contento si tienes .
 have.1sg more friends than enemies become.1sg happy if have.2sg
 *'I have more friends than you will be happy if you have enemies'

The general analysis of comparative sub-deletion is that it involves movement of an empty operator (therefore, there is no deletion) from the position of determiner or modifier of the adjective to a higher position in the clause. However, Bresnan (1973), among others, has proposed that this is a case of real ellipsis.

4. Types of ellipsis in Spanish (2): verbal and predicate ellipsis

The terminological proliferation that we mentioned in §3 for types of ellipsis is particularly clear in the case of verbal ellipsis, where different terms are used that make reference not only to the size of the elliptical material, but also to the syntactic context where that ellipsis appears.

If we just concentrate on the size of the elliptical material, two types of verb ellipsis need to be differentiated: ellipsis affecting the constituent that contains the inflected verb and ellipsis that affects the constituent containing a non-finite verb but leaves behind at least some auxiliaries. The first one is generically known as 'gapping' and the second one is called 'VP ellipsis':

- (206) a. Juan puede ver a su hijo, y María también <puede ver a su hijo>. gapping
 Juan can see DOM his son, and María too <can see DOM her son>
 b. Juan puede ver a su hijo, y María también puede <ver a su hijo>. VP-ellipsis
 Juan ca see DOM his son, and María too can see DOM her son

VP-ellipsis can refer more specific names depending on the nature of the remnant. The example in (206b), for instance, is sometimes known as modal complement ellipsis, while VP-ellipsis is reserved for perfect auxiliaries or do-insertion in the English literature. In principle, both phenomena should be the same, but as we will see it is possible that modal complement ellipsis should be different from other VP cases.

This basic distinction is sometimes described with other terms that refer not to the size of the ellipsis site, but to the complexity of the remnants or the syntactic context where the ellipsis site is included. When it comes to the syntactic context where the ellipsis site is located, the name 'conjunction reduction' is assigned sometimes to cases of gapping or VP-ellipsis that happen in one of the conjuncts of a coordinative structure, as in (206) above, in contrast to cases where the same ellipsis happens within the comparative coda, which are called cases of 'comparative deletion':

- (207) Marta lee más libros que Juan <lee> revistas.
 Marta reads more books than Juan <reads> magazines
 'Marta reads more books than Juan reads magazines'

Finally, other terms are used that refer to how many remnants are left from the bona fide VP constituent. The term *gapping*, which we will call '*strict gapping*' to avoid terminological confusion, is used when a constituent containing the verb and excluding at least two other constituents is elided –that is, there are at least two remnants from the VP–. In contrast, *stripping* is the term used to describe cases which elide all constituents but one.

- (208) a. Juan odia las acelgas y María, las alcachofas. *strict gapping*
 Juan hates the chards and María, the artichokes
 'Juan hates chards and María, artichokes'
 b. Juan odia las acelgas, y las alcachofas también. *stripping*
 Juan hates the chards and the artichokes too
 'Juan hates chards, and artichokes too'

The situation is even more complex because particular analyses that restrict one type of ellipsis according to the size of the ellipsis site to only some syntactic contexts may use additional terms to refer to such cases. For instance, cases like (209), where one elides the non-finite complement of a finite lexical verb are treated by some authors as instances of *pseudo-gapping*, like the cases that involve auxiliaries, while others use the name '*null complement anaphora*' for cases where the remnant includes a lexical verb, although these cases should be considered in some cases ellipsis of full clauses.

- (209) Juan quería comprar una casa, pero su mujer se negó <a comprar una casa>.
 Juan wanted to buy a house, but his wife SE refused <to buy a house>
 'Juan wanted to buy a house, but his wife refused'

Given the terminological confusion, in this section we will structure the range of ellipsis mainly as divided between *gapping* and *pseudo-gapping*, and within each one we will make subdivisions when appropriate.

4.1. *Gapping: strict gapping and stripping*

Gapping (Ross 1967, Kuno 1976, Hankamer 1979, Siegel 1987, Jayaseelan 1990, Lasnik & Saito 1991, Reinhart 1991, Hartmann 1998, Lechner 1998, 2004; Johnson 2000, Winkler 2003, Yoshida 2005, Hernández 2007), removes an inflected verb, which in languages like Spanish –where the verb is assumed to rise to TP when inflected– means that a constituent containing at least T must be elided.

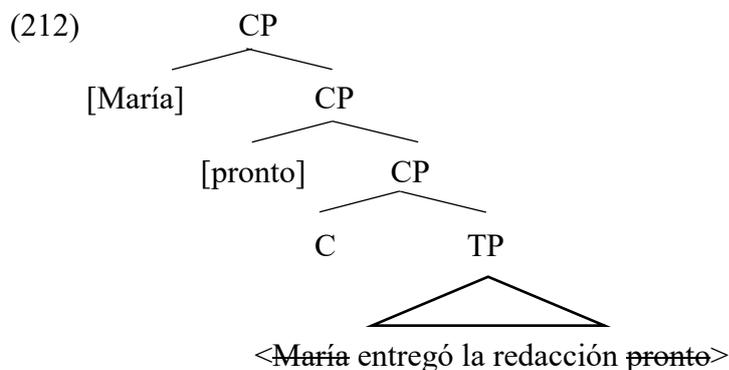
- (210) Carlos tiene más manzanas que María <tiene X manzanas>.
 Carlos has more apples than María <has X apples>

In *gapping*, at least one constituent that is assumed to be initially associated to the lexical verb must be part of the remnant. That constituent can be an argument or an adjunct.

- (211) a. Carlos entregó el trabajo tarde y María, pronto.
 Carlos delivered the assignment late, and María, early
 'Carlos delivered the assignment late, and María, early'
 b. Carlos entregó tarde el trabajo y María, la redacción.

Carlos delivered late the assignment, and María, the essay
 'Carlos delivered the assignment late, and María, the essay'

As in cases of noun ellipsis (§3.2), the remnant is interpreted contrastively, which suggests that it has been focalised. This suggests a type of analysis where the remnant(s) have been moved to focus positions higher than T, and some constituent containing T is at the ellipsis site.



Within gapping, as we have advanced, strict gapping is the term that we will use for cases where the remnant contains at least two constituents associated to the lexical verb, and stripping will be used for cases where the remnant is only one constituent.

The standard analysis of strict gapping and stripping is that they are both instances of the same configuration which minimally differ in how many constituents are displaced to the focus position. In the following subsections we will evaluate through the empirical behaviour whether this conclusion is empirically granted or not.¹

4.1.1. Identity in strict gapping and stripping

Both types of gapping display the same pattern with respect to the identity between the associate and the ellipsis site. In both types, it is allowed that the agreement features of the verb are different in person and number:

- (213) a. Juan comió sopa y nosotros <comimos> paella.
 Juan ate.3sg soup and we ate.1pl paella
 'Juan ate soup and we, paella'
 b. Juan comió sopa y nosotros <comimos sopa> también.
 Juan ate.3sg soup and we ate.1pl soup too
 'Juan ate soup and we too'

Provided that the time period is identified in the remnant, both types of ellipsis also allow mismatches in the temporal specification of the verb, something that is initially problematic for

¹ We will leave aside one property that, since McCawley (1993), has been related to gapping: the so-called determiner-sharing phenomenon, whereby gapping makes it possible that the determiner of a subject is elided, as in (i):

(i) Many students of mathematics love music, and students of music, mathematics.

Even though McCawley argues that this is only possible under gapping, Schwarzer (2021) shows that the phenomenon happens in other ellipsis types too. Given the empirical pattern, it is likely that determiner-sharing involves extraction of NP from below DP before DP goes away as part of the material elided by a logically independent ellipsis operation.

the idea that T is part of the material elided. Note that tense in T is not a feature associated with agreement, but an interpretable one.

- (214) a. Juan llega hoy y María <llegó> anoche.
 Juan arrives today and María <arrived> yesterday-night
 b. Juan vino ayer y <Juan vendrá> mañana también.
 Juan came yesterday and <Juan will.come> tomorrow too

In contrast to this flexibility, gapping shows two strict restrictions. The first one has to do with the prepositional marking of the arguments and adjuncts: even in languages that allow preposition stranding, the PP must be present.

- (215) a. John talked about mathematics, and Susan <talked> about history.
 b. *John talked about mathematics, and Susan <talked about> history.

Of course, the same applies to Spanish.

- (216) a. Juan duda de que vengas, y María <duda> de que te quedas.
 Juan doubts of that come.2sg, and María <doubts> of that you stay
 'Juan doubts that you will come, and María that you stay.
 b. *Juan duda de que vengas, y María <duda de> que te quedas.
 Juan doubts of that come.2sg and María <doubts of> that you stay

The second strong restriction of gapping is that voice must be matched in the associate and the ellipsis site:

- (217) a. Juan fue entrevistado por Víctor y María <fue entrevistada> por Manuel.
 Juan was interviewed by Víctor and María <was interviewed> by Manuel
 b. Víctor entrevistó a Juan y Manuel <entrevistó> a María.
 Víctor interviewed Juan and Manuel <interviewed> María
 (218) a. *Juan fue entrevistado por Víctor y Manuel <entrevistó> a María.
 Juan was interviewed by Víctor and Manuel <interviewed> María
 b. *Víctor entrevistó a Juan y María <fue entrevistada> por Manuel.
 Víctor interviewed Juan and María <was interviewed> by Manuel

When it comes to word order, there is a preference for having a parallel ordering between the constituents in the associate and the equivalent remnants next to the ellipsis site. Consider for instance the relative ordering between the direct and the indirect objects:

- (219) a. Juan le dio un libro a María, y <Juan le dio> un reloj a Susana.
 Juan her gave a book to María, and <Juan her gave> a watch to Susana
 b. Juan le dio a María un libro y <Juan le dio> a Susana un reloj.
 Juan her gave to María a book and <Juan her gave> to Susana a watch

The same applies to adjuncts and arguments:

- (220) a. Pedro llegó pronto a la fiesta y <Pedro llegó> tarde al trabajo.
 Pedro arrived early to the party and <Pedro arrived> late to.the job
 'Pedro arrived early to the party and late to work'
 b. Pedro llegó a la fiesta pronto y <Pedro llegó> al trabajo tarde.

Pedro arrived to the party early and <Pedro arrived> to the job late
 'Pedro arrived to the party early, and to work, late'

The requisite with respect to ordering is more flexible when it comes to polarity particles like *sí* 'yes', *no* 'not', *también* 'also' and *tampoco* 'neither'. Although it has been claimed that strict gapping rejects polarity markers before any remnant (Brucart 1999: 2816), speakers do not consider the following examples ungrammatical.

- (221) a. Juan no le dio nada a María, pero Carlos sí a sus padres.
 Juan not her gave nothing to María, but Carlos yes to his parents
 'Juan didn't give anything to María, but Carlos did to his parents'
 b. Juan encontró un tesoro en su jardín, pero Carlos no en el suyo.
 Juan found a treasure in his garden, but Carlos not in his
 'Juan found a treasure in his garden, but Carlos didn't in his'

These sentences are particularly natural with the focus adverbs *también* 'also' and *tampoco* 'neither'.

- (222) a. Juan no le dio nada a María, y Carlos tampoco a sus padres.
 Juan not her gave nothing to María, and Carlos neither to his parents
 'Juan didn't give anything to María, and Carlos neither to his parents'
 b. Juan encontró un tesoro en su jardín, y Carlos también en el suyo.
 Juan found a treasure in his garden, and Carlos also in his

It is true that the preferred ordering is with the polarity marking at the end of the remnant, however.

- (223) a. Juan no le dio nada a María, pero Carlos a sus padres sí.
 Juan not her gave nothing to María, but Carlos to his parents yes
 'Juan didn't give anything to María, but Carlos did to his parents'
 b. Juan encontró un tesoro en su jardín, pero Carlos en el suyo no.
 Juan found a treasure in his garden, but Carlos in his not
 'Juan found a treasure in his garden, but Carlos didn't in his'

However, it is also possible to find the polarity marker before both remnants.

- (224) a. Juan no le dio nada a María, pero sí Carlos a sus padres.
 Juan not her gave nothing to María, but yes Carlos to his parents
 'Juan didn't give anything to María, but Carlos did to his parents'
 b. Juan encontró un tesoro en su jardín, pero no Carlos en el suyo.
 Juan found a treasure in his garden, but not Carlos in his
 'Juan found a treasure in his garden, but Carlos didn't in his'

4.1.2. Licensing in strict gapping

Strict gapping is licensed in particular in four different contexts: (i) coordination structures, (ii) comparative structures of any type, (iii) conditional clauses and (iv) exceptives. We have already seen some examples of coordination structures, and we will get back to them in §4.2 below, so here we will illustrate the other two types of gapping.

While identity and contrast in the remnant are enough to license gapping in coordinate structures, subordinate structures require a notion of comparison between the associate and the

ellipsis site to license gapping. Comparatives of superiority, inferiority and equality allow gapping equally –remember that these are cases of comparative deletion (§3.4) as well as of gapping–.

- (225) a. Juan tiene más libros que Almudena <tiene> revistas.
 Juan has more books than Almudena <has> magazines
 b. Este coche gasta menos gasolina que esa impresora <gasta> tinta.
 this car uses less gasoline than that printer <uses> ink
 c. Tu casa tiene tantos baños como la mía <tiene> habitaciones.
 your house has as many bathrooms as the mine <has> rooms

If comparison is implicit (Brucart 1987: 73), gapping can still be licensed. In general, relative clauses do not allow gapping, as can be seen in (xx):

- (226) *Pedro desayunó café ayer con un amigo que <desayunó> chocolate el lunes.
 Pedro had coffee yesterday with a friend that <had> chocolate on Monday

However, a sentence like (227) below is possible because there is an implicit comparison between the degrees of attention that Pedro and María have.

- (227) Pedro estudia matemáticas con la atención que María <estudia> inglés.
 Pedro studies mathematics with the attention that María <studies> English
 'Pedro studies mathematics with the same attention as María studies English'

Temporal clauses that involve comparisons and ordering between temporal chunks usually also allow gapping. This is the case of *antes* 'before' and *después* 'after' clauses, which are comparative. Independent evidence that these linkers are comparative is that, like comparative adjectives, they must combine with *mucho* 'much' and not with *muy* 'very'.

- (228) a. {muy / *mucho} alto
 very / much tall
 b. {mucho / *muy} más alto
 much / very more tall
 'much taller'
 (229) a. *muy {antes / después}
 very before / after
 b. mucho {antes / después}
 much before / after
 'much before / after'

See the following example:

- (230) Juan entregó el trabajo {antes / después} que María la redacción.
 Juan delivered the assignment before/after that María the essay

When comparison, implicit or explicit, is a component that intermediates the relation between the associate and the ellipsis site, gapping is allowed in temporal clauses. In its absence, gapping is not allowed in temporal clauses, even when there is parallelism and contrast with the remnants.

- (231) a. *Juan limpió la habitación cuando María <limpió> el baño.
 Juan cleaned the room when María <cleaned> the bathroom
 b. *Juan entregó el trabajo en cuanto María <entregó> la redacción.
 Juan delivered the assignment as soon as María <delivered> the essay

However, it is possible when there is comparison:

- (232) Yo ofrezco soluciones cuando tú <ofreces> solo problemas.
 I offer solutions when you <offer> only problems

Consider also conditional clauses.

- (233) a. *Si Juan entrega el trabajo, María <entrega> la redacción.
 if Juan delivers the assignment, María <delivers> the essay
 b. Si Juan entrega un buen trabajo, María <entrega> uno mejor.
 if Juan delivers a good assignment, María <delivers> one better

In the second sentence, gapping is possible because there is a semantic comparison between the quality of the assignments that Juan and María deliver, but there is no such comparison in the first sentence. Correlatively, gapping is impossible.

Other examples where the subordinate clause does not allow gapping disallow gapping even in the presence of a comparison:

- (234) a. *Juan comió paella mientras que María <comió> sopa.
 Juan ate paella while that María <ate> soup
 b. *Juan entregó el trabajo porque María <entregó> la redacción.
 Juan delivered the assignment because María <delivered> the essay
 c. *... que Juan entregara el trabajo para que María <entregara> la redacción.
 ... that Juan delivered the assignment so that María <delivered> the essay
 d. *Aunque Juan entregó el trabajo, María <entregó> la redacción.
 although Juan delivered the assignment, María <delivered> the essay

The examples above are expected to be ungrammatical due to the lack of a comparison, but the comparison does not save strict gapping anyways.

- (235) a. *Juan encontró problemas mientras que María <encontró> soluciones.
 Juan found problems while that María <found> solutions
 b. *Juan encontró soluciones porque María <encontró> problemas.
 Juan found solutions because María <found> problems
 c. *... que Juan encontrara problemas para que María <encontrara> soluciones.
 ... that Juan found problemas so that María <found> solutions
 d. *Aunque Juan encontró problemas, María <encontró> soluciones.
 although Juan found problems, María <found> solutions

Note that the following two sentences with *aunque* 'although' and *mientras que* 'while' do not constitute counterexamples to the previous generalisation.

- (236) a. Juan no encontró problemas, aunque María sí <encontró> objeciones.
 Juan not found problems, although María yes <found> objections
 b. Juan no encontró problemas, mientras que María sí <encontró> objeciones.

Juan not found problems, while that María yes <found> objections

The reason, as Bosque (1984) notes, is that in these two cases the conjunctions have a coordinative use equivalent to *pero* 'but'. Note that coordinative conjunctions cannot be initial (237).

- (237) *Pero no hacía frío, llovía.
 but not it.was cold, rained
 Intended: 'It rained but it was not cold'

In the cases where these conjunctions license gapping, they cannot appear in initial position:

- (238) a. *Aunque María no encontró problemas, Juan sí <encontró> objeciones.
 although María not found problems, Juan yes <found> objections
 b. *Mientras que María no encontró problemas, Juan sí <encontró> objeciones.
 while that María not found problems, Juan yes <found> objections.

Otherwise, when the conjunctions are truly subordinative, they can appear in initial position.

- (239) a. Aunque hace frío, mi padre ha salido.
 although it.is cold, my father has gone.out
 b. Mientras que tú trabajas, yo estudio.
 while that you work, I study

Moving now to the third syntactic context that licenses gapping, strict gapping is also possible in fragment answers, although as we will see in §5.2.1 these cases may rather be considered cases of fragment answers which happen to contain two remnants.

- (240) A: ¿Qué le diste a quién?
 what her gave to who?
 B: <Le di> una manzana a María
 her gave an apple to María

Finally, exceptive constructions also license gapping. Exceptives are structures that name exceptions to a generalisation, as *excepto* 'except' does:

- (241) Trajeron todos los libros, excepto los más pesados.
 brought all the books, except those most heavy
 'They brought all books, except the heaviest ones'

Exceptives also license strict gapping:

- (242) Todos limpiaron toda su casa, excepto Juan <limpió> el baño.
 everybody cleaned all their houses, except Juan <cleaned> the bathroom.

Taking stock, strict gapping is licensed in a variety of contexts: coordination, explicit and implicit comparison, exceptives and fragment answers. Interestingly, these cases may be reduced to only two if we take, as Moltmann (1992) does, comparison as a type of coordination rather than as a type of subordination, and exceptives as coordinative structures (Moreno Quibén & Pérez Jiménez 2012).

4.1.3. Licensing in stripping

While gapping and stripping do not show distinctions in coordinate and fragment answer cases, they do in comparative cases.

The following examples show stripping in coordination and fragment answers.

- (243) a. Juan encontró un tesoro en su jardín, y María también.
 Juan found a treasure in his garden, and María also
 b. Juan no encontró nada en su jardín, y María tampoco.
 Juan not found anything in his garden, and María neither.
- (244) A: ¿Quién te dijo eso?
 who you told that
 'Who told you that?'
 B: Juan

But now contrast this with comparative structures. Real, explicit comparative clauses allow stripping, as can be easily seen:

- (245) a. Mi coche corre más que esta moto <corre>.
 my car runs more than this motorcycle <runs>
 b. Mi casa cuesta tanto como ese coche <cuesta>.
 my house costs as.much as that car <costs>

The same goes for temporal clauses involving comparison:

- (246) a. Luis llegó antes que María <llegó>.
 Luis arrived before than María
 b. María llegó después que Luis <llegó>.
 María arrived after that Luis <arrived>

However, establishing an implicit comparison is not enough for stripping in other types of structure. Consider temporal and conditional clauses:

- (247) a. *Si vienen problemas, <vienen> soluciones.
 if come problems, <come> solutions
 b. *Cuando encuentro problemas, <encuentro> soluciones.
 when find.1sg problems, find.1sg solutions

The first sentence can be rescued marginally by adding a polarity marker, but not so clearly the second.

- (248) a. Si vienen problemas, también <vienen> soluciones.
 if come problems, also <come> solutions
 b. ??Cuando encuentro problemas, también <encuentro> soluciones.
 when find.1sg problems, also <find> solutions

An apparent counterexample where stripping is licensed in a subordinate through implicit comparison seems to be relative clauses like the following:

- (249) María estudia con la atención que Pedro <estudia>.

María studies with the attention that Pedro <studies>

However this is a relative clause, which means that there is a second remnant in addition to *Pedro*: the antecedent *la atención* 'the attention', be it displaced from inside the TP or associated to a pronoun. Therefore, this is a case of strict gapping.

This asymmetry is therefore a strong contrast between strict gapping and stripping within subordinate clauses.

Another contrast, this time one that may be explained through information structure, is the one noted in coordination: stripping requires the presence of a polarity marking, something that is only optional in the case of strict gapping.

- (250) a. Juan trajo un libro, y María *(también).
 Juan brought a book, and María *(too)
 b. Juan no trajo nada, y María *(tampoco).
 Juan not brought nothing, and María neither

The exception is –forgive the redundancy– exceptive constructions:

- (251) Todos vinieron a la fiesta, excepto Juan.
 everyone came to the party, except Juan
 'Everybody came to the party, except for Juan'

The explanation may be that the reversal of the polarity of the previous clause is already hardwired in the meaning of *excepto* and the other exceptive conjunctions. In (xx) the interpretation is that Juan did not attend the party, and in the next example the interpretation is that he did attend it.

- (252) Nadie vino a la fiesta, excepto Juan.
 nobody came to the party, except Juan
 'Nobody came to the party, except for Juan'

This supports the view that the requirement that stripping combines with polarity markers is semantic in nature, and not syntactic: what one needs is to determine the polarity of the ellipsis that has to be resolved.

4.1.4. Other properties

In contrast to noun ellipsis, both strict gapping and stripping are sensitive to syntactic islands.

- (253) a. *Juan preguntó quién comerá paella ayer, y <preguntó quién comerá> sopa también.
 Juan asked who will eat paella yesterday, and <asked who will eat> soup also
 'Juan asked yesterday who will eat paella, and who will eat soup also'
 b. *Juan conoció a alguien que habla inglés ayer, y <a alguien que habla> ruso también.
 Juan met someone that speaks English yesterday, and someone that talks Russian too
 'Juan met yesterday someone that speaks English, and someone that speaks Russian'

Moreover, both types of gapping are also sensitive to clausal nodes, even when they are not islands. The subordinate clause that appears as complement of a verb like *pensar* 'think' does not constitute an island, as the following example shows:

- (254) a. Juan piensa [que María trajo un libro].
 Juan thinks that María brought a book
 b. ¿Qué*i* piensa Juan [que trajo María *t_i*]?
 what thinks Juan that brought María?
 'What does Juan think that María brought?'

However, in gapping the ellipsis site cannot cross a clausal node:

- (255) *María piensa que Juan trajo un libro, y Luis <piensa que Juan trajo> un reloj.
 María thinks that Juan brought a book, and Luis <thinks that Juan brought> a watch

Note that the fact that <*piensa que Juan trajo*> is not a syntactic constituent is not enough to explain the ungrammaticality: if one assumes movement of the remnant, that sequence becomes a constituent with an unpronounced copy of the remnant. Moreover, if gapping is restricted to the subordinate clause the sentence does not improve:

- (256) *María piensa que Juan trajo un libro, y Juan piensa que María <trajo> un reloj.
 María thinks that Juan brought a book, and Juan thinks that María <brought> a watch

The generalisation, in principle, is that the associate and the ellipsis site cannot be both in a subordinate position, perhaps because the associate needs to c-command at some level of analysis the ellipsis site. In the previous sentences, the TP of the ellipsis site is not c-commanded by the whole material of the associate.

A potential piece of evidence for the idea that c-command may be at play is an example like (257):

- (257) Juan trajo un libro y Luis piensa que <Juan trajo> un reloj.
 Juan brought a book and Luis thinks that Marta <brought> a watch

In this case, the first conjunct c-commands the subordinate clause where gapping is licensed. This example is not conclusive, however, because the prosody of <Luis piensa que> is reduced, suggesting that it may be a parenthetical or a bridge sentence, in which case the second conjunct would not contain a subordinate clause.

With respect to the difference between anaphora and cataphora (§2.2), gapping disallows cataphoric relations:

- (258) *Juan <trajo> manzanas, y María trajo peras.
 Juan <brought> apples, and María brought pears

To conclude with gapping, in contrast to noun ellipsis the syntactic requisites are much stricter. There is evidence, also, that stripping and strict gapping may not be identical to each other, as they behave differently across comparative sentences.

4.1.5. Conjunction reduction cases

Coordinative structures, as we have seen, play a significant role in gapping structures, both in strict gapping and in stripping. We have illustrated all cases before with copulative or adversative coordination, but other types of coordination are equally possible.

Negative copulative coordination licenses gapping:

- (259) Ni Juan trajo el libro ni María <trajo> los apuntes.

neither Juan brought the book nor María <brought> the notes

Disjunctive coordination allows gapping as well:

- (260) a. Juan debe traer el libro o María los apuntes.
 Juan must bring the book or María the notes
 b. O Juan trae el libro o María los apuntes.
 either Juan brings the book or María the notes

In cases of stripping, as in other coordinative structures, a polarity marker is generally required to license the only constituent:

- (261) a. Juan debe traer el libro, o María si no.
 Juan must bring the book, or María if not
 b. O Juan trae el libro, o María si no.
 either Juan brings the book, or María if not

Finally, note that in some cases of stripping with a polarity marker –particularly in those of corrective negation–, it has been proposed that the structure does not involve ellipsis (see §8 below).

- (262) Juan lee cuentos, pero novelas no.
 Juan reads stories, but novels not
 'Juan reads stories, but not novels'

4.2. *VP-ellipsis (1): auxiliary cases*

In contrast to gapping in all its versions, VP-ellipsis labels cases where the whole VP has been elided and the only material left from the verbal predicate is –maximally– the preverbal subject and a finite verb that is assumed to take the VP as its complement (Zagona 1982, Hardt 1993, Lobeck 1995, Lasnik 1999, Fox 2000, Johnson 2001, Gengel 2007, Goldberg 2005, Aelbrecht 2010, van Craenenbroek 2017).

- (263) Laura puede quedarse en casa, pero Luis no debe <quedarse en casa>.
 Laura may stay.se at home, but Luis not should <stay.se at home>
 'Laura may stay at home, but Luis should'nt'

VP-ellipsis comes in different versions, most clearly in English, where do-support may allow speakers to identify that some of the verbal material has not been elided even in the absence of overt auxiliaries in the associate of the ellipsis site.

- (264) John arrived with his partner, but Mary didn't <arrive with her partner>

In Spanish, polarity markers may display a similar effect to do-support, but note that in those cases VP-ellipsis and stripping are basically indistinguishable:

- (265) Juan vino con su compañero, pero María no <vino con su compañero>
 Juan arrived with his partner, but María not <came with her partner>

In what follows, I will concentrate on cases of VP-ellipsis that clearly leave behind an overt auxiliary verb in Spanish.

Like other types of ellipsis, VP-ellipsis requires that a contrast is established between the remnant and the equivalent elements of the associate, which produces two distinct versions of VP-ellipsis with auxiliaries: cases where the subject is phonologically empty, because the contrast is established with the auxiliary, and cases where the auxiliary may be identical because the subject establishes contrast.

- (266) a. Juan podía casarse con María, pero no debía <casarse con María>.
 Juan may marry with María, but not should <marry with María>
 'Juan could marry María, but he shouldn't'
 b. Juan podía casarse con María, y Luis también podía <casarse con María>
 Juan may marry with María, and Luis also may <marry with María>
 'Juan could marry María, and so could Luis'

4.2.1. Identity

The idea is that VP-ellipsis targets a constituent that excludes the functional structure of the clause but contains at least the lexical verb with its arguments and low adjuncts. This explains that tense and aspect mismatches are expected to be allowed, as the projections where these grammatical concepts are contained are not subject to the identity requisite. A finite verb inflected for tense, aspect and mood can thus be the associate of an infinitive:

- (267) Juan entregó el examen, pero María no pudo <entregar el examen>.
 Juan delivered the test, but María not could <deliver the exam>

The question is how big the constituent containing the lexical VP and its arguments is. In English it is generally assumed that VP-ellipsis targets a constituent smaller than Voice, because there can be mismatches between the voice of the associate and the voice of the ellipsis site, which can easily be verified because passive auxiliaries license VP-ellipsis in this language:

- (268) The janitor must remove the trash when it is apparent that it must be <removed>.

In Spanish it is difficult to test this property because passive auxiliaries do not license VP-ellipsis, but it is clear that voice mismatches are not easy to reconstruct:

- (269) *El portero no debe tirar la basura, pero los residuos deben <ser tirados>.
 the janitor not must remove the trash, but the residues must <be removed>

This, combined with the fact that passive auxiliaries cannot license VP-ellipsis (see next subsection), suggests that in Spanish VP-ellipsis targets also voice.

4.2.2. Licensing

Interestingly, Spanish is more restricted than English or German when it comes to the range of auxiliaries that license VP-ellipsis. Note, for starters, that the Spanish perfect auxiliary does not license the ellipsis of a VP:

- (270) *Juan ya ha leído el periódico, pero Marcos no ha <leído el periódico>
 Juan already has read the news, but Marcos not has <read the news>
 Intended: 'Juan has already read the newspaper, but Marcos hasn't'

One could claim that the present forms of *haber* 'have' are phonologically clitics which need the support of a main verb, but this cannot be argued for the pluperfect forms, which are phonologically robust and stressed. Even in those cases, VP ellipsis is not licensed by the perfect auxiliary.

- (271) *Juan ya había leído el periódico, pero Marcos no había <leído el periódico>
 Juan already had read the news, but Marcos not had <read the news>
 Intended: 'Juan had already read the newspaper, but Marcos hadn't'

Deep anaphora (cf. §2.1) with an overt pronoun does not save the construction.

- (272) *Juan ya había leído el periódico, pero Marcos no lo había
 Juan already had read the news, but Marcos not it had
 Intended: 'Juan had already read the newspaper, but Marcos hadn't done so.'

In such cases, the pro-form *hacerlo* 'do it' is compulsory:

- (273) Juan ya había leído el periódico, pero Marcos no lo había hecho.
 Juan already had read the news, but Marcos not had done it
 Intended: 'Juan had already read the newspaper, but Marcos hadn't done it'

Other auxiliaries that reject VP-ellipsis include the passive auxiliary –in actuality, the copulative verb– and temporal-aspectual auxiliaries. With respect to the passive auxiliary, VP-ellipsis is out, but deep anaphora with a neuter pronoun is allowed.

- (274) a. *Juan fue arrestado por la Interpol, pero Luis no fue <arrestado por la Interpol>.
 Juan was arrested by the Interpol, but Luis not was <arrested by the Interpol>
 Intended: 'Juan was arrested by the Interpol, but Luis wasn't'
 b. Juan fue arrestado por la Interpol, pero Luis no lo fue.
 Juan was arrested by the Interpol, but Luis not it was
 Intended: 'Juan was arrested by the Interpol, but Luis wasn't so'

Interestingly, the pro-form *hacerlo* is out in passive contexts:

- (275) *Juan fue arrestado por la Interpol, pero Luis no lo fue hecho.
 Juan was arrested by the Interpol, but Luis not it was done
 Intended: 'Juan was arrested by the Interpol, but Luis wasn't so'

Temporal-aspectual auxiliaries systematically reject VP-ellipsis, but allow the pro-form *hacerlo*.

- (276) a. *Sandra tiene dos libros leídos, pero Juan no tiene <dos libros leídos>
 Sandra has two books read, but Juan not has <two books read>
 b. *Marina está leyendo, pero Carlos no está <leyendo>.
 Marina is reading, but Carlos not is <reading>
 c. *Pedro lleva esperándote dos horas, y Marta también lleva <esperándote dos horas>
 Pedro carries waiting-you two hours, and Marta also carries <waiting two hours>
 d. *Juan va a venir hoy, pero María no va <a venir hoy>
 Juan goes to come today, but María not goes <to come today>

This contrasts sharply with two classes of verbs: modal auxiliaries and phase verbs. Phase verbs (Fábregas 2019 for an overview) also express aspectual notions, but differ from real auxiliaries in that they also allow nominal complements:

- (277) a. Juan empezó (a escribir) la novela.
 Juan started (to write) the novel
 b. Juan terminó (de leer) la novela.
 Juan finished (of read) the novel

These verbs license ellipsis of their complement, although note that, if they are considered lexical verbs, these would be cases of null complement anaphora like those reviewed in §4.4 below:

- (278) a. Juan empezó a ordenar la habitación, pero nosotros no empezamos <a ordenarla>
 Juan started to order the room, but we not started <to order.it>
 b. Juan terminó de ordenar la habitación, pero nosotros no terminamos <de ordenarla>
 Juan finished of order the room, but we not finished <of order.it>
 c. Juan siguió viendo la película, pero nosotros no seguimos <viendo la película>
 Juan continued watching the movie, but we not continued <watching the movie>
 d. Juan continuó limpiando la habitación, pero nosotros no continuamos <limpiándola>
 Juan continued cleaning the room, but we not continued <cleaning-it>

These cases, however, should probably be considered cases of null complement anaphora. A significant difference between null complement anaphora and VP-ellipsis is that the former allows for pragmatic antecedents (it is a case of deep anaphora in the sense of §2.1), while the latter rejects it. It is possible to have a situation like the following:

- (279) [Mary and John have agreed to clean the room together. Mary leaves the house to do some shopping, and when she comes back, she finds John washing the floor]

- Ah, ya has empezado.
 ah, already have started

Another difference between null complement anaphora and VP-ellipsis is that VP-ellipsis allows extraction of some constituent. Apparently, this is possible with phase verbs, but only apparently:

- (280) Sé qué habitación empezó a limpiar y también qué habitación no terminó.
 know.1sg which room started to clean and also which room not finished

Caution is advised because phase verbs allow nominal complements and the previous sentence, instead of involving ellipsis, could be a case of nominal object without a non-finite verb, as in (281):

- (281) Juan no terminó la habitación.
 Juan not finished the room
 'Juan didn't finish (cleaning) the room'

As soon as we try extraction of a constituent that the phase verb cannot select alone, the result is ungrammatical, further supporting the view that null complement anaphora is a serious candidate with phase verbs:

- (282) *Sé a quién dejó de pagarle el alquiler, y también a quién no empezó <a pagar el alquiler>
 know to whom left of paying the rent, and also to whom not started

If this contrast is considered robust, it can in fact be taken as a test to distinguish between phase verbs and proper aspectual auxiliaries. Contrast *parar de* 'stop of' with *dejar de* 'stop of'.

- (283) a. Juan paró de recitar la lista, pero nosotros no paramos <de recitar la lista>.
 Juan stopped of recite the list, but we not stopped <of recite the list>
 b. *Juan dejó de recitar la lista, pero nosotros no dejamos <de recitar la lista>.
 Juan stopped of recite the list, but we not stopped <of recite the list>

When it comes to modal verbs, their behaviour is different from phase verbs. They generally allow VP-ellipsis.

- (284) a. Juan puede traerlo, pero no debe <traerlo>.
 Juan can bring-it, but not must <bring-it>
 b. Juan debe traerlo, pero no puede <traerlo>.
 Juan must bring-it, but not can <bring-it>

Note that the verb 'can' seems to allow deep anaphora:

- (285) [Mary enters the house and sees John struggling to carry a big box]
 - ¿Puedes?
 can.you
 'Do you manage?'

This is probably a different use of the modal verb as a verb of attempt or achievement, restricted to 'can', because other modal verbs reject that:

- (286) [Mary enters the house and sees John spying on the neighbours with a telescope]
 - *¿Debes?
 should.you

In contrast to the absent material under phase verbs, modal verbs allow extraction from the ellipsis site, as noted by Depiante (2000):

- (287) Sé qué libro pudo leer Juan, y también qué libro no pudo <leer Juan ~~qué libro~~>.
 know which book read Juan, and also which book not could <read Juan which book>
 'I know which book Juan could read, and also which book he could not'
 (288) Las manzanas las trajo Juan, pero las peras no pudo <traer-las Juan ~~las peras~~>.
 the apples them brought Juan, but the pears not could <bring-them Juan the pears>

Thus, we conclude that modal verbs license VP-ellipsis, and not null complement anaphora (see also Fernández-Sánchez 2023 for the same conclusion).

If these empirical patterns have been correctly interpreted in the paragraphs above, the situation that we may be witnessing is one where ellipsis of VPs under modal verbs is a distinct process from what the literature calls VP-ellipsis more generally: under this light, Spanish would lack VP-ellipsis entirely but would allow a distinct process, which is the ellipsis of the complement of a modal verb. This would mean that the term 'Modal Complement Ellipsis' would have to be kept distinct from standard VP-ellipsis cases. We will see below, in fact, that VP-ellipsis and modal complement ellipsis differ with respect to antecedent-contained deletion (§4.2.4), also in English. Altogether, the set of facts support the conclusion that VP-ellipsis should be restricted to ellipsis involving non modal auxiliaries.

The modal verbs that use *que* 'that' as a linker generally keep that linker as part of the remnant, generally with focus stress.

- (289) a. Sería bueno tenerlo, pero no hay QUE <tenerlo>.
 would.be good have.it, but not must that <have.it>
 'It would be good to have it, but it is not necessary'
 b. Puedes venir, pero no tienes QUE <venir>.
 may come, but not have to <come>
 'You may come, but you don't have to'

When *ir a + infinitive* is used as a modal form, it also allows VP-ellipsis, with the linker pronounced as a stressed form:

- (290) Sé que debería hacerlo, pero no voy A <hacerlo>.
 know.1sg that should do-it, but not going TO <do it>

4.2.3. Other properties

In contrast to gapping, VP-ellipsis allows a more flexible relation between the associate and the ellipsis site. The ellipsis site can be in a subordinate clause with the associate in a main clause, and they can both be within subordinate clauses; the associate can also be in a subordinate clause with the ellipsis site in a main clause:

- (291) a. Juan quiere tener un hijo, pero Luisa dice que no debe <tenerlo>.
 Juan wants to.have a son, but Luisa says that not must <have-it>
 b. Juan piensa que Luis puede tener un hijo, pero Luisa piensa que no debe <tenerlo >.
 Juan thinks that Luis can have a son, but Luisa things that not must <have it>.
 c. Luis sabe que Pedro quiere tener un hijo, pero su mujer no debe <tener un hijo>.
 Luis knows that Pedro wants to.have a son, but his wife not must <have a son>

Moreover, VP-ellipsis, like noun ellipsis, can be licensed within syntactic islands:

- (292) a. Juan tendrá un hijo si María puede <tener un hijo>.
 Juan will.have a son if María can <have a son>
 b. Juan tendrá un hijo con una mujer que pueda <tener un hijo>.
 Juan will.have a son with a woman that can <have a son>
 c. Juan tendrá un hijo cuando su mujer pueda <tener un hijo>.
 Juan will.have a son when his wife can <have a son>
 d. Juan tendrá un hijo, pero no sabe si su mujer puede <tener un hijo>.
 Juan will.have a son, but not knows if his wife can <have a son>

VP-ellipsis allows a cataphoric relation with the antecedent.

- (293) Juan no puede <leer chino>, pero María lee chino con fluidez.
 Juan not can <to.read Chinese>, but María reads Chinese with ease

We wondered in §4.1 above whether a structure like (292) is a case of stripping with a polarity marker or it should be viewed in parallel to auxiliary VP-ellipsis, as in the English translation.

- (294) Juan trajo un libro pero María no.
 Juan brought a book but María not
 'Juan brought a book, but María didn't'

The differences in licensing that we have just seen, in fact, allow us to conclude that the presence of the subject with the polarity marker is at least sometimes equivalent to VP-ellipsis with auxiliaries, as it allows to be within islands or inside subordinate clauses.

- (295) a. Juan tendrá un hijo si María también <tiene un hijo>.
 Juan will.have a son if María too
 'Juan will have a son if María will too'
 b. Juan tendrá un hijo, pero no sabe si su hermano también <tendrá un hijo>.
 Juan will.have a son, but not knows if his brother too <will.have a son>
 'Juan will have a son but he doesn't know if his brother will too'
 c. Juan tendrá un hijo cuando su hermano también <tenga un hijo>.
 Juan will.have a son when his brother too <will.have a son>
- (296) María piensa que Juan trajo un libro y Juan piensa que María no <trajo un libro>.
 María thinks that Juan brought a book and Juan thinks that María not
 'María thinks that Juan brought a book and Juan thinks that María didn't'

To conclude, in contrast to gapping VP-ellipsis is more flexible, and perhaps it should be analysed as a pronominal category that is licensed in syntax. This may explain why aspectual and temporal auxiliaries do not license it, but phase verbs, that can select nominal complements, allow it: if that pronominal category is not a verb and auxiliaries really need to have a verb, we correctly expect auxiliaries to reject that pronominal. This, however, leaves unexplained why modal verbs, that in principle also select verbs (297), allow VP-ellipsis.

- (297) Juan puede *(hablar) inglés.
 Juan can (speak) English

That idea would also leave unexplained some asymmetries with null complement anaphora, which we will now discuss. Moreover, the proposal that the syntactic structure at the ellipsis site is missing in auxiliary VP-ellipsis also runs against cases where it has been argued that extraction from the ellipsis site is possible, as we saw above.

4.2.4. Antecedent-contained deletion

The following sentence produces the problem that has been called 'antecedent-contained deletion' (Sag 1976, Larson & May 1990):

- (298) John hates every book that Mary does.

The problem that these structures produce can be seen as soon as one tries to reconstruct the elided material. The ellipsis site is contained within a relative clause that is, in turn, the object of the verb. On the standard assumption that the VP contains the verb and the object, the ellipsis site is contained in the antecedent.

Moreover, antecedent-contained deletion threatens to produce an infinite regress situation: note that the reconstructed material cannot be as in (299), because the ellipsis is not interpreted as Mary hating every book.

(299) John hates every book that Mary does <hate every book>

The universal quantifier should be restricted as each and only the books that Mary hates, and this is how we arrive to infinite regression:

(300) John hates every book that Mary does <hate every book that Mary does hate every book...>

A Spanish example cannot be provided, though: these antecedent-contained deletions are restricted precisely to the VP-ellipsis cases that Spanish does not allow. In fact, modal verbs do not license it, which is yet another argument to treat modal VP-ellipsis as different from the structures that receive that name:

(301) *Juan reads every book that Mary can.

Given that this is a state of the art about ellipsis in Spanish, and not just about ellipsis in general, we will not provide too many details about the possible analyses. Since Sag (1976) the proposed solution is that the identity requisite must be met at LF –see §7 for a general classification of theories about ellipsis– and at that point the DP has undergone quantifier movement, which produces the following structure:

(302) [every book that Mary did <hate>] John hates.

After movement, the associate is the verb 'hates' with a trace; that same structure can now be safely copied, without infinite regression, in the ellipsis site. However, this analysis assumes a theory where traces are ontologically distinct from overt arguments they are coindexed with –if one had a copy-theory of movement where a trace is just an unpronounced instance of exactly the same syntactic constituent that has moved, the infinite regression problem comes back–; see Kennedy (1994), Williams (1995), Heim (1997) and Fox (2002) for different analyses based on the late merger of relative clauses and other elements that avoid direct reference to traces.

4.3. *Pseudo-gapping*

Pseudo-gapping is the version of VP-ellipsis where one or more constituents of the non-finite predicate remain in addition to the subject (and of course the auxiliary). On the surface, it is a combination of gapping and VP-ellipsis:

(303) John may visit Susan, but he won't <visit> Mary.

Spanish does not generally allow pseudo-gapping. The following minimal pairs illustrate, on the first member, a VP-ellipsis case and, on the second, an intended instance of pseudo-gapping.

- (304) a. Laura puede quedarse en casa, pero Luis no debe <quedarse en casa>.
 Laura may stay.se at home, but Luis not should <stay.se at home>
 'Laura may stay at home, but Luis shouldn't'
 a. *Laura puede quedarse en casa, pero Luis no debe <quedarse> en el despacho.
 Laura may stay.se at home, but Luis not should <stay.se> in his office.
 'Laura may stay at home, but Luis shouldn't'
- (305) a. Juan podía casarse con María, pero no debía <casarse con María>.
 Juan may marry with María, but not should <marry with María>
 'Juan could marry María, but he shouldn't'
 b. *Juan podía casarse con María, pero no debía <casarse> con Ana.
 Juan may marry with María, but not should <marry with María>
 'Juan could marry María, but he shouldn't'
- (306) a. Juan debía ver a su madre, pero no podía <ver a su madre>
 Juan should see DOM his mother, but not could <see his mother>
 b. *Juan debía ver a su madre, pero no debía <ver> a su abuela.
 Juan should see DOM his mother but not should <see> his grandma.

This also applies to adjuncts: note that in the following case, the adjunct is interpreted as modifying the auxiliary.

- (307) Juan quería ir al cine pero María no podía <ir al cine> ese día.
 Juan wanted to.go to.the movies, but María not could <go to.the movies> that day
 'Juan wanted to go to the movies, but María couldn't that day'

If we force an adjunct that cannot modify the modal, the result is ungrammatical:

- (308) *Juan debía escribirlo con cuidado, pero María no podía <escribirlo> con atención.
 Juan should write.it with care, but María not could <write it> with attention

Phase verbs pose some descriptive problems. Pseudo-gapping is apparently allowed with phase verbs, judging from sentences like the following.

- (309) Juan empezó a escribir el informe, pero María no empezó la novela.
 Juan started to write the report, but María not started the novel

One may be tempted to say that the previous sentence is a case of pseudo-gapping, as in (310):

- (310) Juan empezó a escribir el informe, pero María no empezó <a escribir> la novela.
 Juan started to write the report, but María not started <to write> the novel

However, phase verbs famously can take nominal complements without ellipsis (Pustejovsky 1995).

- (311) Juan empezó la novela.
 Juan started the novel
 'Juan started (to write / to read) the novel'

In consequence the apparent case of pseudo-gapping above may not involve any ellipsis, but a DP complement. This diagnosis is confirmed by further data: dative arguments, which do not belong to the phase verb, cannot be remnants:

- (312) *Juan terminó de darle cosas a los niños, y María también terminó a los profesores.
 Juan finished of give-him things to the children, and María also finished to the teachers

The absence of pseudo-gapping in Spanish can be interpreted in different ways. If one bases its analysis in gapping, and assumes that gapping involves focalisation of one or more constituents above the ellipsis site, the absence of pseudo-gapping may mean that Spanish lacks any position below the auxiliary and above the lexical verb to move focalised elements. We will get back to the analytical options in §7.

4.4. VP-ellipsis (2): null complement anaphora

The cases involving VP-ellipsis that involve so-called null complement anaphora (Shopen 1972, 1973, Hankamer & Sag 1976, Grimshaw 1979, Napoli 1983, Fillmore 1986, Saeboe 1993, 1996, Depiante 2000, 2001, Cinque 2004, Haynie 2010) involve finite verbs as remnants that are generally assumed not to be auxiliaries. This includes, prominently, verbs that subordinate infinitival subordinate constituents.

- (313) a. Juan compraría una casa grande, pero María no quiere <comprar una casa grande>.
 Juan would.buy a house big, but María not wants <to.buy a house big>
 b. A Pedro le gusta dormir mucho, pero a Carla no le gusta <dormir mucho>.
 to Pedro him likes to.sleep a.lot, but to Carla not her likes <to.sleep a lot>
 c. Sé dónde comer, pero no cuándo <comer>.
 know.Isg where to.eat but not when <to eat>

Despite the surface similarity to VP-ellipsis with auxiliaries, there are several reasons to treat null complement anaphora as different from the cases involving auxiliaries, as we will see in this section.

Before we continue, a clarification is necessary: for historical reasons, null complement anaphora is considered a type of VP ellipsis, but this is under the assumption that the syntactic material that the lexical verb embeds corresponds to a VP. As nothing remains from the complement of the lexical verb, in those cases where the non-finite verb is assumed to project a full subordinate clause arriving at least to TP and possibly also to CP, in those cases it would be more appropriate to talk about clause ellipsis. However, attending to the traditional terminology, I will keep null complement anaphora among those that involve VP ellipsis, given that the complement of many of the lexical verbs that license it (eg., 'try' and 'manage') corresponds to a VP.

The main property of null complement anaphora is that the non-finite VP must correspond to an argument, and not to an adjunct. For instance, in the following sentence the infinitival is interpreted as intention or finality, and consequently null complement anaphora (NCA) is not allowed (Zagona 1982, 1988; Lobeck 1987, 1992).

- (314) *Juan vino a traer el libro, pero Marta no vino <a traer el libro>.
 Juan came to bring the book, but Marta not came <to bring the book>

Another property of NCA is that subject infinitives can be licensed, but only in postverbal position:

- (315) a. You shouldn't smoke because it is dangerous to _____.
 b. *You shouldn't smowk because to _____ is dangerous.
- (316) a. A Pedro le gusta dormir mucho, pero a Carla no le gusta <dormir mucho>.
 to Pedro him likes to.sleep a.lot, but to Carla not her likes <to.sleep a lot>
 b. ??Dormir mucho le gusta a María, pero no le gusta a Pedro.
 to.sleep a.lot her likes to María, but not him likes to Pedro

Despite appearances, NCA and VP-ellipsis act very differently in many grammatical structures. VP-ellipsis allows that the subject (and some adjuncts) remain as remnants, but NCA does not allow any part of the non-finite predicate to survive:

- (317) a. Juan quiere ir al cine, pero Pedro no puede <ir al cine> mañana.
 Juan wants to.go to.the movies, but Pedro not can <go to.the movies> tomorrow
 b. *Juan quiere ir al cine, pero Pedro se niega <a ir al cine> mañana.
 Juan wants to-go to.the movies, but Pedro SE refuses <to go to.the movies> tomorrow

For this reason, many of the analyses of NCA suggest that the whole VP has been substituted by a pronominal expression and, therefore, there is no covert syntax corresponding to the associate at the ellipsis site. In a sense, then, NCA would be a case of deep anaphor. In the following paragraphs, we will see several reasons to accept this view.

4.4.1. Identity

NCA has traditionally been considered a type of deep anaphora, which means that the antecedent is defined in semantic terms rather than on syntactic ones. A strong piece of evidence for this is that voice mismatches are completely accepted in NCA. In the next sentence, the ellipsis site is interpreted as passive, as in the associate:

- (318) Juan fue interrogado por la policía, pero María se negó.
 Juan was interrogated by the police, but María SE refused
 'Juan was interrogated by the police, but María refused <to be interrogated>'

However, in the next example, the associate is passive, and the ellipsis site is interpreted, clearly, as active.

- (319) Como los exámenes no fueron corregidos por Pedro, María se ofreció voluntaria.
 as the exams not were corrected by Pedro, María SE offered volunteered
 'As the exams were not graded by Pedro, María volunteered <to grade the exams>'

This suggests for many authors that NCA establishes an exoforic relation with the possible associates.

4.4.2. Licensing

Beyond having to be in an argument position, preferably an internal argument, the remnant verb must be of a particular type to license NCA. The verbs that allow NCA have been described as typically belonging to the class of verbs of influence involving control.

- (320) a. Juan no quería sacar la basura, pero Pedro le obligó <a sacarla>.
 Juan not wanted to.take the garbage, but Pedro him forced <to take it>
 b. Marta quería ir a la fiesta, y su padre la dejó <ir a la fiesta>.
 Marta wanted to.go to the party, and her father her allowed <to go to the party>

Verbs that belong to this broad category, including those denoting speech acts that are directed towards influencing someone, also allow NCA:

- (321) Juan no quería sacar la basura, pero Pedro le insistió <en sacar la basura>.
 Juan not wanted to.take the garbage, but Pedro him insisted <in take the garbage>
 'Juan didn't want to take out the garbage, but Pedro insisted'

Also in relation with this class, another prominent class are control verbs denoting accepting, promising or refusing something.

- (322) a. Juan quiso ir al cine, pero su mujer se negó <a ir al cine>.
 Juan wanted to.go to.the movies, but his wife SE refused <to go to the movies>
 b. Juan quería comprar una casa, y su mujer aceptó <comprar una casa>.
 Juan wanted to.buy a house, and his wife accepted <to.buy a house>

Sometimes, verbs expressing wishes and desires can also allow this:

- (323) Juan tendrá un hijo, pero su hermana no quiere <tener un hijo>
 Juan will.have a son, but his sister not wants <to.have a son>

In contrast, the following classes of verbs reject NCA:

a) Subject-to-object verbs where the object of the main verb is taken as the subject of the infinitive:

- (324) *Vi a Carlos escribir la carta, y también vi a María <escribir la carta>.
 saw DOM Carlos to.write the letter, and too saw DOM María <write the letter>

b) Subject-to-subject raising verbs where the subject of the finite verb is the subject of the infinitive:

- (325) *Juan parece estar enfermo, y María también parece <estar enferma>

c) Control verbs involving attempt and achievement:

- (326) a. *Juan intentó abrir la puerta, pero Pedro no intentó <abrir la puerta>.
 Juan tried to.open the door, but Pedro not tried <to.open the door>
 b. *Carlos consiguió aprender chino, pero Marcos no consiguió <aprender chino>.
 Carlos managed to.learn Chinese, but Marcos not managed <to.learn Chinese>

d) Verbs that subordinate indirect interrogative clauses:

- (327) *Juan puede dimitir, pero aún no sabe <si dimitir>.
 Juan may resign, but still not knows <whether to.resign>

Depiante (2000) has argued that the reason for this distribution is that NCA involves introducing in the ellipsis site an anaphoric element whose semantic type corresponds to a proposition, question or property, but not to an individual. When the predicates select an individual, which by hypothesis is the case of verbs expressing attempt or achievement, NCA

is impossible. However, there is general consensus that these properties are also lexical (Fillmore 1986), in the sense that sometimes an individual predicate belonging to one general class differs in its behaviour from the other members. For instance, *dar la impresión de* 'to give the impression of', which is a subject-to-subject raising verb, licenses NCA:

- (328) Juan da la impresión de estar enfermo, pero María no da la impresión <de estar enferma>
 Juan gives the impression of be sick, but María not gives the impression of be sick

Conversely, control verbs that are close in their meaning to some that accept NCA reject it:

- (329) a. *Juan quiere tener un hijo, pero su mujer no desea <tener un hijo>.
 Juan wants to.have a son, but his wife not wishes <to.have a son>
 b. *Juan quiso ir al cine, pero su mujer rechazó <a ir al cine>.
 Juan wanted to.go to.the movies, but his wife refused <to go to the movies>
 c. *Juan no quería sacar la basura, pero Pedro le solicitó < sacar la basura>.
 Juan not wanted to.take the garbage, but Pedro him demanded < take the garbage>
 *'Juan didn't want to take out the garbage, but Pedro demanded'

4.4.3. Other syntactic properties

In parallel to VP-ellipsis, NCA allows for a flexible relation between the associate and the ellipsis site. The ellipsis site can be in a subordinate clause with the associate in a main clause, and they can both be within subordinate clauses; the associate can also be in a subordinate clause with the ellipsis site in a main clause:

- (330) a. Juan quiere tener un hijo, pero Luisa dice que se niega <a tenerlo>.
 Juan wants to.have a son, but Luisa says that SE refuses <have-it>
 b. Juan piensa que Luis puede tener un hijo, pero Luisa dice que se niega <a tenerlo >.
 Juan thinks that Luis can have a son, but Luisa things that SE refuses <have it>.
 c. Luis sabe que Pedro quiere tener un hijo, pero su mujer se niega <a tener un hijo>.
 Luis knows that Pedro wants to.have a son, but his wife SE refuses <have a son>

Syntactic islands are also allowed:

- (331) a. Juan tendrá un hijo si María acepta <tener un hijo>.
 Juan will.have a son if María agrees <have a son>
 b. Juan tendrá un hijo con una mujer que acepte <tener un hijo>.
 Juan will.have a son with a woman that agrees <have a son>
 c. Juan tendrá un hijo cuando su mujer acepte <tener un hijo>.
 Juan will.have a son when his wife agrees <have a son>
 d. Juan tendrá un hijo, pero no sabe si su mujer aceptará <tener un hijo>.
 Juan will.have a son, but not knows if his wife will.agree <have a son>

In the case of NCA, it has been argued that there is no syntactic structure in the ellipsis site, which among other things makes extraction from the elided material impossible (cf. Depiante 2018). The following sentences, involving VP-ellipsis, contrast with NCA cases:

- (332) a. Sé qué libro pudo leer Juan, y también qué libro no pudo <leer Juan ~~qué libro~~>.
 know which book read Juan, and also which book not could <read Juan which book>
 'I know which book Juan could read, and also which book he could not'
 b. Las manzanas las trajo Juan, pero las peras no pudo <traer-las Juan ~~las peras~~>.

- the apples them brought Juan, but the pears not could <bring-them Juan the pears>
 (333) a. *Sé qué libro pudo leer Juan, y también qué libro accedió <a leer Juan qué libro>.
 know which book read Juan, and also which book agreed <to read Juan which book>
 'I know which book Juan could read, and also which book he could not'
 b. *Las manzanas las trajo Juan, pero las peras se negó <a traer-las Juan las peras>.
 the apples them brought Juan, but the pears SE refused <to bring-them Juan the pears>

Finally, NCA allows cataphoric relations:

- (334) María se negó <a tener un hijo>, pero Pedro quería tener un hijo.
 María SE refused <to have a child>, but Pedro wanted to have a child

4.5. *Deletion of non-verbal predicates in clauses: comparative deletion involving predicates*
 Spanish does not allow ellipsis of a non-verbal predicate.

- (335) a. *Juan es alto y María también es <alta>.
 Juan is tall and María also is tall
 *'Juan is tall and María is also'
 b. *Juan está harto y María también está <harta>.
 Juan is fed.up and María also is <fed.up>
 *'Juan is fed up and María is also'

For such cases Spanish needs to refer to the predicate through a neuter pronoun *lo* 'so'.

- (336) a. Juan es alto y María también lo es.
 Juan is tall and María also so is
 'Juan is tall and so is María'
 b. Juan está harto y María también lo está <harta>.
 Juan is fed.up and María also so is <fed.up>
 'Juan is fed up and so is María'

English behaves in the same way for these cases, but it differs from Spanish in allowing predicate ellipsis in comparative deletion cases. The proposal for these cases is identical to the argument ellipsis cases discussed in §3.3 above:

- (337) John is taller than Mary is.

Spanish, as in the case of comparative deletion involving arguments, rejects this operation with *que* 'that'.

- (338) *Juan es más alto que María es.
 Juan is more tall that María is

Instead, and also in parallel to cases that translate argument comparative deletion to Spanish, the preposition *de* 'of' must be used.

- (339) Juan es más alto de lo que es María.
 Juan is more tall of that which is María

As in §3.3, it seems that here we have a relative clause structure where the neuter relative pronoun *lo que* accesses the adjectival predicate (alternatively, where the adjectival predicate is relativised and a neuter *lo* is merged on top of the resulting CP). In this analysis, there is no predicate ellipsis in comparative deletion in Spanish either.

The proposal that in the apparent cases of predicate comparative deletion the predicate is actually a pronominal element and there is no ellipsis is supported by the fact that adjunct secondary predicates are not allowed in the relative structures with *lo que*, but they are with *como* 'how'.

- (340) a. **María volvió más borracha de lo que volvió Pedro.*
 María returned more drunk of that which returned Pedro
 Intended: 'María came back drunker than Pedro'
 b. *María volvió más borracha de como volvió Pedro.*
 María returned more drunk of how returned Pedro

The crucial difference between copulative verb predicates and adjunct secondary predicates is that the latter cannot be pronominalised and do not allow relativisation with *lo que*.

- (341) a. **María volvió borracha, y Pedro también lo volvió.*
 María returned drunk, and Pedro also so returned
 b. **Borracha es lo que volvió María.*
 drunk is that which returned María
 c. *Borracha es como volvió María.*
 drunk is how returned María

The availability of *lo que* for secondary predicates in comparatives correlates with their capacity to be relativised with that pronominal. Selected secondary predicates generally allow both:

- (342) a. *Idiota es lo que Juan considera a María.*
 idiotic is that which Juan considers DOM María
 b. *María es menos idiota de lo que la considera Juan.*
 María is less idiotic of that which her considers Juan
 'María is less stupid than Juan considers her to be'

To wrap up the discussion of ellipsis of non-verbal predicates, the only class of predicates which can be elliptical are locatives with the verb *estar*.

- (343) *Juan estaba en casa, y María también estaba <en casa>.*
 Juan was at home and María also was at home

The pattern is very restricted. The verb *ser* does not license it:

- (344) **El concierto era en el parque, y la exposición también era <en el parque>.*
 the concert was in the park, and the exhibition also was <in the park>

The pattern is restricted to locatives, which suggests that here instead of ellipsis we have a null locative pronominal.

- (345) **María estaba con su padre, y Juan también estaba <con su padre>.*

María was with her dad, and Juan also was <with his dad>

4.6. Saint Isidore's ellipsis: absent verb structures

With this term we call cases that are only instances of ellipsis if one adopts Saint Isidore's pre-theoretical definition, discussed in §1.1: situations where there is a verb missing that is otherwise interpreted (see §5.2.2 for cases of fragments involving more material than a single verb). Gutiérrez Ordóñez (1992) calls them 'absent verb structures', a terminology that I will also adopt here (see also Brucart 1999: 2847).

These cases are particularly frequent in proverbs:

- (346) a. De tal palo, tal astilla.
 from such stick, such splinter
 'Like father like son'
- b. A lo hecho, pecho.
 to the done, chest
 'What's done is done'
- c. Perro ladrador poco mordedor.
 dog barking little biting
 'A barking dog seldom bites'
- d. Cada loco con su tema.
 each fool with his topic
 'To each his own'
- e. Cada oveja con su pareja.
 each lamb with its partner
 'Each sheep with its mate'
- f. A palabras necias, oídos sordos.
 to words stupid, ears deaf
 'Deaf ear to foolish words'
- g. En casa del herrero, cuchillo de palo.
 in house of.the blacksmith, knife of wood
 'In the blacksmith's house, a wooden knife'

These expressions lack associates for the verb. Even though sometimes the verb that can be interpreted corresponds to the copula, a variety of other verbs seems necessary. Clearly, one cannot talk about ellipsis in these cases: we have, rather, expressions (in many cases with demotivated meaning) which lack a verb, and where the complete reading depends on the idiomatic use.

This is not to say that proverbs lack any interesting syntax, of course; it rather means that treating these cases as ellipsis would produce more problems than solutions. See §5.2.2 for the equivalent cases where more material has been erased.

5. Types of ellipsis in Spanish (3): clausal ellipsis

In the final set of cases, the assumption is that not only the verbal material, but also a considerable chunk of the clause (typically, including TP) has been elided. Remember that Null complement anaphora (§4.4) is typically classified as VP-ellipsis, but depending on the type of constituent that one associates to the non-finite form it could be properly classified as clausal ellipsis.

5.1. *Sluicing*

Sluicing refers to cases, normally involving indirect interrogative sentences, where the only remnant is one or several interrogative pronouns (Ross 1969, Erteschik-Shir 1973, Rosen 1976, Shimoyama 1995, Kizu 1997, Giannakidou & Merchant 1998, Merchant 1998, 2001, 2004, 2010, Vicente 2008, 2018, Barros et al. 2014, Gribanova & Manetta 2016):

- (347) a. Carla trajo algo a la fiesta, pero no sé qué trajo ella a la fiesta.
 Carla brought something to the party, but not know what brought she to the party
 'Carla brought something to the party, but I don't know what she brought to the party'
 b. Carla trajo algo a la fiesta, pero no sé qué.
 Carla brought something to the party, but not know.1sg what
 'Carla brought something to the party, but I do not know what'

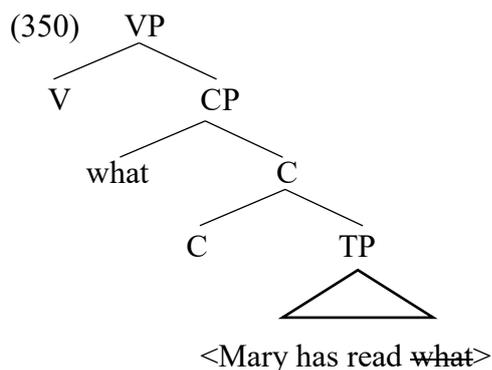
In the most studied type of sluicing, which is known as 'merge sluicing', the interrogative pronoun has an indefinite associate. That associate can be a pronoun, such as *algo* 'something' in the example above, a PP containing an indefinite expression (343) or an indefinite determiner.

- (348) a. Juan vino en algún momento, pero no sé cuándo <vino Juan>.
 Juan came in some moment, but not know.1sg when <came Juan>
 'Juan came at some point, but I don't know when'
 b. Juan lo hizo de alguna manera, pero no sé cómo.
 Juan it did of some manner, but not know.1sg how
 'Juan did it somehow, but I don't know how'
 c. Juan encontró un problema, pero no sé cuál <encontró Juan>.
 Juan found a problem, but not know.1sg which <found Juan>
 'Juan found some problem, but I don't know which one'
 d. Laia trajo algunas cosas, pero no sé cuáles <trajo Laia>
 Laia brought some things, but not know which <brought Laia>
 'Laia brought some things, but I don't know which ones'

Note that in the last series of examples the expression that is pronominalised with the wh-element *cuál* 'which' is not only the indefinite determiner, but the whole nominal constituent, including the NP. We know this because in many varieties of Spanish 'which' cannot combine with an overt noun:

- (349) a. %No sé cuál libro leer.
 not know which book to.read
 b. No sé qué libro leer.
 not know which book to.read
 'I don't know which book to read'
 c. No sé qué libro leer.
 not know which book to.read
 'I don't know which book to read'

This suggests that sluicing implies the deletion of syntactic constituents, which is the general view that comes from Ross (1969), where it is proposed that sluicing is the deletion of a TP constituent whose interrogative has been extracted, and moved to spec, CP:



However, several arguments have been given in the literature against this view, which we will revise in §5.1.3 below.

The literature on sluicing differentiates between three types (Chung, Ladusaw & McCloskey 1995, Vicente 2011, Abels 2018a). The most frequent case, which we have illustrated already, is the so-called 'merge-sluicing'. The two properties of that structure on the surface are that (i) the remnant *wh*-element has an indefinite antecedent in the associate and (ii) the speaker simply wonders about the identity of that indefinite antecedent, without establishing any contrast.

The second type of sluicing is called 'contrast-sluicing'. In this type of structure, the *wh*-element in the remnant may have a definite antecedent, and the speaker does not wonder about the identity of that antecedent, but about the identity of other alternatives that are added to the antecedent. In Spanish, this type of sluicing requires the presence of *más* 'else' in the remnant.

- (351) a. Luis conoce a Chomsky, pero no sé a quién más <conoce Luis>
 Luis knows DOM Chomsky, but not know DOM who else <knows Luis>
 'Luis knows Chomsky, but I don't know who else'
 b. Pedro tiene una casa en Marbella, pero no sé dónde más <tiene una casa>
 Pedro has a house in Marbella, but not know where else <has a house>
 'Pedro has a house in Marbella, but I don't know where else'

However, the antecedent does not need to be definite. It is enough that the remnant is interpreted as some additional entity that contrasts with the antecedent –in the sense that it must be distinct–:

- (347) a. Pedro compró gambas, pero no sé qué más.
 Pedro bought shrimps, but not know what else
 'Pedro bought shrimps, but I don't know what else'
 b. Pedro necesita un martillo, pero no sé qué más.
 Pedro needs a hammer, but not know what else
 'Pedro needs a hammer, but I don't know what else'

The third class of sluicing are so-called sprouting cases. In sprouting, the remnant lacks an antecedent in the associate:

- (348) a. Pedro resolvió el problema, pero no sé cómo.
 Pedro solved the problem, but not know how
 b. Pedro perdió el tesoro, pero no sé dónde.
 Pedro lost the treasure, but not know where
 c. Pedro ha venido, pero no sé cuándo.
 Pedro has come, but not know when

Identifying sprouting cases may be more difficult than it seems. It seems necessary to differentiate between adjunct and argument sprouting. In cases like (349) below, the verb in the associate requires a participant which is not expressed, perhaps because it has been elided. Syntactically, then, it is likely that there is an argument that associates with the remnant.

- (349) Juan llegó, pero no sé adónde.
 Juan arrived, but not know where-to
 'Juan arrived, but I don't know where'

In contrast, in clear cases of adjuncts, there is no evidence that there is a non-overt syntactic position in the associate. This is the case with manner modifiers, and place and time adjuncts.

- (350) Juan llegó, pero no sé cómo.
 Juan arrived, but not know how

Presumably, sprouting is possible because any event that happens entails that it has happened in some manner, in some space and in some time. If one differentiates between cases of real sprouting and cases of arguments that are non-overt, sprouting would be restricted to adjuncts. See Bruccart (1999: 2844), who notes that sprouting is impossible with subjects, which are argumental by definition.

- (351) *Vino, pero no sé quién.
 came, but not know who

Another argument in favour of restricting sprouting only to adjuncts, and propose that it is possible only when the syntactic structure of the associate entails the type of modifier expressed by the *wh*-element, comes from the following contrast:

- (352) a. Juan lo resolvió de alguna manera, pero no sé {de cuál / cómo}.
 Juan it solved in some way, but not know in which /how
 'Juan solved it in some way, but I don't know in which one / how
 b. Juan lo resolvió, pero no sé {*de cuál / cómo}.
 Juan it solved, but not know in which / how
 'Juan solved it, but I don't know how'

Using a PP corresponding to a syntactic constituent consisting of a P and an NP denoting manner is only possible when there is no sprouting and we have a real merge-slucing situation with an indefinite antecedent. In the absence of that overt PP, an adverbial *how* must be used. This is what we expect if the manner is not expressed with an independent syntactic constituent in the associate, and the *wh*-element in the sluice is simply making explicit a semantic notion that is entailed by the associate.

The division between these three types of sluicing has grammatical consequences. For instance, it interacts with preposition stranding. As we advanced, and as we will discuss in detail in §8.3, one of the connectivity effects invoked by those that propose that ellipsis contains abstract syntactic structure in the ellipsis site is the correlation between having preposition stranding and allowing the remnant to lack a preposition. Consider the following English example:

- (353) John talked to John, but I don't know who else.

In principle, there seems to be an asymmetry between the associate and the remnant of sluicing: the antecedent of the *wh*-element is a PP introduced by *to*, while the remnant is a DP. However, the problem resolves once we note that English allows preposition stranding in interrogatives.

(354) Who did John talk to?

In contrast-sluicing and sprouting, Spanish illustrates the other group of languages, those that lack preposition stranding and must pied-pipe the preposition in the remnant of sluicing.

- (355) a. Alguien habló con Ana, pero no sé con quién más.
 someone talked to Ana, but not know with whom else
 b. *Alguien habló con Ana, pero no sé quién más.
 someone spoke to Ana, but not know who else

The idea is that when the *wh*-element is extracted from the ellipsis site, it must pied-pipe the preposition with it, as in normal *wh*-clauses:

- (356) a. ¿Con quién habló?
 with whom spoke
 b. *¿Quién habló con?
 who spoke with?

The same pattern is found in sprouting, where prepositions cannot be dropped.

- (357) a. Hizo una tarta, pero no sé para quién.
 made a cake, but not know for whom
 b. *Hizo una tarta, pero no sé quién.
 made a cake, but not know who

However, in merge-sluicing the preposition does not need to be present:

- (358) a. Juan habló con alguien, pero no sé quién.
 Juan spoke with someone, but not know who
 b. Hizo una tarta para alguien, pero no sé quién.
 made a cake for someone, but not know who

Vicente (2011) and others have argued that this asymmetry in merge-sluicing can be explained without giving up on the presence of syntactic structure on the ellipsis site. Their proposal, which we will discuss in §8.3, is that the ellipsis site does not contain an identical structure to the associate, but a paraphrase where the remnant lacks a preposition:

- (359) a. Juan habló con alguien, pero no sé quién <es esa persona>.
 Juan spoke with someone, but not know who <is that person>
 b. Juan hizo una tarta para alguien, pero no sé quién <es esa persona>.
 Juan made a cake for someone, but not know who <is that person>

This approach implies giving up on syntactic identity between associate and ellipsis, but there is syntactic structure on the ellipsis site. The reason why contrast-sluicing and sprouting

must keep the preposition is that for them there is no equivalent copulative construction that can be used as a paraphrase:

- (360) a. *No sé quién más es esa persona.
 not know who else is that person
 *'I don't know who else is that person'
 b. *Lo resolvió, pero no sé qué manera es esa manera.
 it solved, but not know what manner is that manner
 *'He solved it, but I don't know how is that manner'

Thus, in the case of sprouting and contrast ellipsis the preposition must appear because there is no alternative structure where the wh-element does not have a preposition that can be recovered on the ellipsis site.

5.1.1. Identity

On the assumption that sluicing involves ellipsis of TP, the theory that defines parallelism at the structural level predicts that all material below TP must be identical. We have already seen a potential counterexample to this in sprouting, which is restricted to adjuncts, to the extent that the adjunct does not need to be present in the associate.

- (361) a. Juan lo resolvió de alguna manera, pero no sé cómo. merge-sluicing
 Juan it solved in some way, but not know how
 b. Juan lo resolvió, pero no sé cómo. sprouting
 Juan it solved, but not know how
 'Juan solved it, but I don't know how'

We already mentioned that the solution to sprouting presumably means allowing the remnant to activate in the syntax a semantic notion that was entailed, but not overtly expressed, by the associate, but this involves already letting the identity be defined in semantic terms rather than strictly syntactic ones.

However, syntactic identity seems to be required. Specifically, voice must be identical in the associate and the ellipsis side, even though it is generally agreed that the entailments of a passive and an active are the same:

- (362) a. Juan aprobó la resolución.
 Juan authorised the resolution
 b. La resolución fue aprobada por Juan.
 the resolution was approved by Juan

Note the following contrasts:

- (363) a. Juan aprobó la resolución, pero no sé qué más. active-active
 Juan authorised a resolution, but not know what else
 'Juan authorised the resolution, but I don't know what else'
 b. La resolución fue aprobada por Juan, pero no sé por quién más. passive-passive
 the resolution was approved by Juan, but not know by whom else
- (364) a. *Juan aprobó la resolución, pero no sé por quién más. active-passive
 Juan approved the resolution, but not know by whom else
 b. *La resolución fue aprobada por Juan, pero no sé quién más. passive-active

the resolution was approved by Juan, but not know who else

It can also be shown that the argument structure and the structure within the verbal phrase must be identical. It is generally agreed that the two ways of introducing the complement of the verb *dudar* 'doubt', with and without PP, are semantically identical:

- (365) a. Juan duda que vengas.
 Juan doubts that come.2sg
 'Juan doubts that you will come'
 b. Juan duda de que vengas.
 Juan doubts of that come.2sg
 'Juan doubts that you will come'

However, the complement must be introduced in an identical way under contrast-slucing.

- (366) a. Juan duda de que vengas, pero no sé de qué más.
 Juan doubts of that come.2sg, but not know of what else
 'Juan doubts that you will come, but I don't know what else'
 b. Juan duda que vengas, pero no sé qué más.
 Juan doubts that come.2sg, but not know what else
 (367) a. *Juan duda que vengas, pero no sé de qué más.
 Juan doubts that come.2sg, but not know of what else
 b. *Juan duda de que vengas, pero no sé qué más.
 Juan doubts that come.2sg, but not know what else

Tense must also be parallel.

- (368) a. Juan trajo un libro ayer pero no sé hoy qué más traerá.
 Juan brought a book yesterday not know today what else will.bring
 'Juan brought a book yesterday, but I don't know what else he will bring today'
 b. *Juan trajo un libro ayer, pero no sé hoy qué más.
 Juan brought a book yesterday, but not know today what else

Thus, sluicing seems to impose a quite strict parallelism in terms of the syntactic structure.

5.1.2. Licensing

It is generally claimed that sluicing can only be licensed by interrogative complementisers, which predicts that only predicates that can select interrogative complementisers will be able to appear in sluicing. *Prima facie*, this prediction is borne out. When the complementiser cannot be interrogative, sluicing is impossible:

- (369) a. Juan afirmó que estaba enfermo.
 Juan stated that was.3sg sick
 'Juan stated that he was sick'
 b. *Juan afirmó cómo estaba.
 Juan stated how was.3sg
 Intended: 'Juan explained how he was'
 c. *Juan no afirmó cómo estaba.
 Juan not stated how was.3sg

- (370) a. *Juan vio a alguien, y afirmó a quién.
 Juan saw DOM someone, and stated DOM who
 b. *Juan vio a alguien, pero no afirmó a quién.
 Juan saw DOM someone, but not stated DOM who

Following the classes of predicates that RAE & ASALE (2009: §43.7j) list as being able to introduce interrogative Cs, it can be shown that there is a direct correlation between them and the predicates that allow sluicing of any type.

a) Predicates that request information:

- (371) Luis vio a alguien, y Ana le preguntó a quién.
 Luis saw DOM someone, and Ana him asked DOM who
 'Luis saw someone, and Ana asked him who'

b) Predicates that express ignorance or loss of information.

- (372) a. Pablo compró algo, pero ignoro qué.
 Pablo bought something, but ignore.1sg what
 'Pablo bought something, but I don't know what'
 b. Susana se casó con alguien, pero he olvidado con quién.
 Susana SE married with someone, but have forgotten with whom
 'Susana married someone, but I have forgotten who'

c) Predicates that express having or acquiring some information.

- (373) a. Alba leyó un libro, y Carlos sabe cuál.
 Alba read a book, and Carlos knows which
 'Alba read a book, and Carlos knows which one'
 b. Lourdes mató a alguien, y Poirot ha descubierto a quién.
 Lourdes killed DOM someone, and Poirot has discovered DOM who
 'Lourdes killed someone, and Poirot has discovered who'

d) Predicates expressing introducing a set of alternatives that can condition a choice or among which one can choose freely:

- (374) a. Puedes traer algunas cosas, pero depende de qué.
 can.2sg bring some things, but depends on what
 'You can bring some things, but it depends which ones'
 b. Puedes traer a alguien, y da igual a quién.
 can.2sg bring DOM someone, and gives same DOM who
 'You can bring someone, and it is indifferent who'

e) Predicates expressing taking a decision over a set of choices:

- (375) a. Juan puede contratar a alguien, y ya ha decidido a quién.
 Juan may hire DOM someone, and already has decided DOM who
 'Juan may hire someone, and he has already decided who'
 b. Juan comprará una casa en algún sitio, y ya ha especificado dónde.
 Juan will-buy a house in some place, and already has specified where

f) Predicates expressing transmission of information:

- (376) a. Alfonso tiene una enfermedad, y ya ha comunicado a su familia cuál.
 Alfonso has an illness and already has told to his family which
 'Alfonso has some illness, and has already told his family which one'
 b. Alguien ha muerto, pero la universidad no ha informado de quién.
 Someone has died, but the university not has informed of who
 'Someone died, but the university has not explained who'

The examples above involve merge-slucing, but to the best of my knowledge all these verb classes allow also contrast-slucing and sprouting.

However, it is relevant to mention that predicates involving indirect exclamative clauses also license sluicing. These predicates generally express a notion of mirativity, through which the speaker reacts to the existence of something unexpected.

- (377) a. Juan compró algo, y me sorprendió qué.
 Juan bought something, and me surprised what
 b. Almudena habló con alguien, y nos llamó la atención con quién.
 Almudena spoke with someone, and us called the attention with whom
 'Almudena spoke with someone and it was puzzling to see who'

This suggests either that exclamative indirect clauses are also introduced by interrogative Cs or that exclamative clauses also have the capacity to license sluicing. A fact that may be useful to decide between these two options is that contrast-slucing and sprouting are equally licensed by exclamative predicates.

- (378) a. Juan compró una manzana, y te va a sorprender qué más.
 Juan bought an apple, and you going to surprise what else
 'Juan bought an apple, and you will be surprised to know what else'
 b. Luisa habló con Pedro, y me alucinó con quién más.
 Luisa spoke with Pedro, and me impressed with whom else
 'Luisa spoke to Pedro, and it was impressed to know with whom else'
- (379) a. Juan lo resolvió, y me sorprendió cómo.
 Juan it solved, and me surprised how
 'Juan solved it, and it surprised me how'
 b. Luisa habló con Pedro, y me impresionó dónde.
 Luisa spoke to Pedro, and me impressed where
 'Luisa spoke to Pedro, and I was impressed to know where'

Given that the three attested types of sluicing are equally possible with exclamatives, this suggests that exclamative C also contains or reduces to interrogative C.

5.1.3. Other properties

The analysis of sluicing as involving TP ellipsis after normal movement of a wh-element to spec, CP in an interrogative C is controversial mainly for four reasons. The first one is that some languages that display the phenomenon of wh-in-situ, where there is no overt movement of wh-elements, also allow sluicing (for instance, Japanese). This argument, of course, does not apply to Spanish.

- Juan not come if not is someone, but not know who
 'Juan will not come if someone is not here, but I don't know who'
- (384) a. *Juan conoce a un hombre que habla un idioma, pero no sé qué idioma;
Juan knows DOM a man that speaks a language, but not know which language
 conoce Juan a un hombre que habla t_i .
knows Juan DOM a man that speaks
- b. Juan conoce a un hombre que habla un idioma, pero no sé cuál.
 Juan knows DOM a man that speaks a language, but not know which
 'Juan knows someone that speaks a language, but I don't know which one'
- (385) a. *Juan llegó cuando vio a alguien, pero no sé a quién; llegó cuando vio t_i .
 Juan arrived when saw DOM someone, but not know who arrived when saw
- b. Juan llegó cuando vio a alguien, pero no sé a quién.
 Juan arrived when saw DOM someone, but not know DOM who
 'Juan arrived when he saw someone, but I don't know who'

Additionally, the associate and the ellipsis site can be within coordinates of different size. Note that in the next example, the associate is a main clause and the ellipsis site is contained within a subordinate clause.

- (386) Juan vio a alguien, pero María asegura que no sabe a quién.
 Juan saw DOM someone, but María claims that not knows DOM who
 'Juan saw someone, but María claims that she does not know who'

The fourth argument is that sluicing apparently also allows left-branch extraction (Ross 1967). In general, left-branch extraction is a ban on moving the adjective contained within an NP to first position in interrogatives:

- (387) a. Contrataron a un trabajador muy eficaz.
 hired.3pl DOM a worker very efficient
 'They hired a very efficient worker'
- b. *¿Cómo de eficiente $_i$ contrataron a un trabajador t_i ?
 how of efficient hired.3pl DOM a worker
 Intended: 'How efficient was the worker that they hired?'

However, alleged sluicing cases do allow the movement of the adjectival phrase with a degree wh-adverb:

- (388) Contrataron a un trabajador eficaz, pero no sé cómo de eficaz.
 hired.3pl DOM a worker efficient, but not know how of efficient
 'They hired an efficient worker, but I do not know how efficient'

As an additional property, note that sluicing allows cataphoric relations:

- (389) No sé a quién <vio Juan>, pero Juan vio a alguien.
 not know DOM who <saw Juan>, but Juan saw DOM someone
 'I don't know who, but Juan saw someone'

To conclude this overview, sluicing is perhaps one of the most puzzling types of ellipsis with respect to its empirical properties. On the one hand, it shows evidence for the existence of syntactic structure on the ellipsis site through the strong requisite of syntactic parallelism,

the correlations in cases of preposition stranding and the ban on eliding elements that are not constituents. On the other hand, its behaviour with islands, left-branch extractions and multiple sluicing in languages that otherwise do not allow it may support a non-syntactic analysis. For this reason, and as we will show in §8 below, sluicing is perhaps the type of ellipsis that has been most studied in the literature about Spanish and otherwise.

5.2. *Fragments*

The term 'fragment' is used to refer to a whole family of constructions that overtly contain only one syntactic constituent but are interpreted as whole propositions. They can be classified in two groups: answers to questions and other utterances.

- (390) A: ¿Qué libro te has leído?
 which book you have.2sg read?
 'Which book have you read?'
 B: *La Regenta*.

- (391) [A man holding a dress in his hands]
 Solo veinte euros.
 only twenty euros

In both cases, the fragment is interpreted declaratively, as a proposition that can have a truth value and be denied by interlocutors: 'I have read *La Regenta*' and 'This dress only costed me twenty euros'.

5.2.1. Fragment answers

With respect to answer fragments, the general consensus, as reproduced in Merchant (2004), is that they involve movement of the remnant to a high position –presumably, in the CP periphery– followed by ellipsis of the rest of the clause, including TP and the subject position.

The variety of elements that can be fragments involves any argument or adjunct, and also polarity particles, that Holmberg (2013) treats as instances of focalisation of the polarity phrase that marks the whole clause:

- (392) a. ¿Qué le diste a Juan en el salón ayer con tanto misterio?
 what him gave to Juan in the room yesterday with such mystery?
 - Un libro.
 a book
 b. ¿A quién le diste un libro en el salón ayer con tanto misterio?
 to whom him gave a book in the room yesterday with such mystery?
 - A Juan.
 to Juan
 c. ¿Quién le dio un libro a Juan en el salón ayer con tanto misterio?
 who him gave a book to Juan in the room yesterday with such mystery?
 - Yo.
 Me
 d. ¿Dónde le diste un libro a Juan ayer con tanto misterio?
 where him gave a book to Juan yesterday with such mystery?
 - En el salón.
 in the living-room
 e. ¿Cuándo le diste un libro a Juan en el salón con tanto misterio?
 when him gave a book to Juan in the room with such mystery?

- Ayer.
yesterday
- f. ¿Cómo le diste un libro a Juan en el salón ayer?
how him gave a book to Juan in the room yesterday?
- Con mucho misterio.
with much mystery

- (393) ¿Le diste un libro a Juan ayer?
him gave a book to Juan yesterday?
-Sí / No.
yes / no

Fragment answers show connectivity effects referring to case and prepositional marking. However, there are also several anti-connectivity effects that are problematic for a full syntactic analysis where the fragment is the remnant of a full ellipsis. Some of these effects are similar to those found in sluicing cases, which are clearly related to these.

First of all, as in fragment answers, islands can be ignored.

- (394) ¿Un chico [que habla qué idioma] conociste?
a boy that talks which language knew.2sg
'You met a boy that speaks which language?'
- Rumano.
Romanian
- (395) ¿[Si viene quién] te pondrás muy contenta?
if comes who you become.2sg very happy?
'Who is the person that you will be very happy if he comes?'
- Brad Pitt.
- (396) ¿[Antes de que leas qué] quieres que nos vayamos?
before of that read.2sg what want.2sg that we leave?
'You want us to leave before you read what?'
- El informe.
the report

Secondly, fragment answers can drop the preposition, in a way similar to sluicing (and potentially the analysis may be the same, involving clefting).

- (397) ¿Con quién has hablado?
with whom have.2sg talked?
'Who did you talk to?'
- Juan.

There are also other anti-connectivity effects in fragment answers that are not represented in sluicing. Casielles (2006) notes that a finite verb can be answer with an infinitive.

- (398) ¿Qué estás haciendo?
what are.2sg doing?
'What are you doing?'
- Jugar al tenis.
to.play to the tennis
'Play tennis'

Again, these cases could be reanalysed like preposition stranding cases, assuming a cleft source (§8.3 below):

- (399) Jugar al tenis es lo que estoy haciendo.
to.play to tennis is that what am doing
'Play tennis is what I am doing'

Finally, fragment answers must be anaphoric and cataphoric relations cannot be established with the associate. This is presumably directly derived from the fact that the very notion of answer occupies the second position in a question-answer pair; as the associate is by definition the question, the relation established by the answer must be anaphoric.

By extension, the same properties can be identified in fragments that react to the previous utterance of someone, specially in corrective cases where we want to substitute one of the constituents of a previous claim by another speaker.

- (400) A: María ha tomado paella.
María has had paella
B: No, sopa.
no, soup

5.2.2. Other cases of fragments

The situation is more complicated in those fragments that are not the reaction to a question. In the cases where there is a question, one can argue that –even though the linguistic material is in another utterance– the ellipsis is licensed by an associate, which is the mental representation of the clause induced by the question. After all, questions and answers form pairs in semantics.

In contrast, when there is no linguistic source that licenses an associate, as in the case of other fragments, the ellipsis analysis is much more complex because there is, initially, no clear restriction for the material that has to be elided, or explanation about how that dependency is satisfied in grammar.

Fragments can correspond to different types of speech acts. Some can be declarative:

- (401) [The host of the dinner comes back from the kitchen holding a bottle]
- De La Rioja.
from La Rioja
['This wine that I have in my hand is from La Rioja']

Others can be imperatives, requests or directives:

- (402) a. [A sign next to the entrance to the faculty]
- No fumar.
not to.smoke
['It is forbidden to smoke' / 'It is compulsory not to smoke']
b. [A man gets inside a taxi]
- Al aeropuerto.
to.the airpor
['Drive me to the airport']
c. [A man walks into a bar]
- Descafeinado con la leche fría.

decaf with the milk cold
 ['I want to have a decaf coffee with cold milk']

Others can be associated to exclamatives.

(403) [A man reacts after being accused of lying]
 - ¡Yo un mentiroso!
 me a liar
 ['Imagine that anyone would call me a liar!']

Others can be questions or offers:

(404) [A guest during a dinner, holding the bottle next to your glass]
 - ¿Un poco más?
 a bit more?
 ['Do you want to have a bit more wine?']

Many other speech acts are conceivable. As the reader can see, the main problem is that there is no associate and the speech act reading is dependent on the extralinguistic context, which explains why the examples needed to have a clarification at the beginning. Without that context, the speech act cannot be deduced, because there is no linguistic associate to recover the material that is allegedly elided.

For the same reason, glossing the specific linguistic utterance that is supposed to be reconstructed is arbitrary. In the example where the host offers more wine, one could imagine any verb denoting preference or desire in the second person ('te apetece un poco más', 'quieres un poco más', 'te gustaría un poco más') or any verb denoting filling the glass in the first person ('te sirvo un poco más', 'te lleno la copa un poco más', 'te pongo un poco más').

In fact, and this is a strong argument against an ellipsis analysis, the same effect can be obtained with non-linguistic signs. The host may as well look at the guest in the eye and then look at the glass to convey the speech act; she may just utter *Hmm?*, or point to the glass, among other options. A person that gets into a taxi and cannot talk for any reason may just show the driver the boarding pass, or point to the airport in a map.

For these reasons (see Stainton 2006 for an overview), the actual general consensus is that these fragments do not involve ellipsis, but rather constitute non-clausal utterances that get interpreted as speech acts through context and world knowledge (thus, they should be analysed pragmatically, not syntactically). In this sense, they would be structurally similar to some non-verbal formulas that are standardised in their use to convey specific speech acts, as the following:

- (405) a. Buenos días.
 good days
 'Good morning!'
 b. Muchas gracias.
 many thanks
 'Thanks'
 c. Adiós.
 good-bye
 d. [After someone has sneezed]
 ¡Salud!
 health!

'Bless you'

With this we end the discussion of the empirical properties of all cases of ellipsis in Spanish. In the next section we will discuss the issue of how these ellipsis types can be grouped, and which nodes in a syntactic configuration seem to license ellipsis in Spanish.

6. Summary of the empirical aspects: ways to group ellipsis types

Given the complexity of the patterns reviewed in the previous three sections, this one is devoted to establishing generalisations over the empirical data. These generalisations will allow us to focus the theoretical discussion in the coming sections.

The next table summarises the empirical properties identified for each ellipsis type. The following abbreviations are used: FPE 'full pronominal anaphora', RNR 'Right Node Raising', NP 'NP-ellipsis', CD 'comparative deletion', CSD 'comparative sub-deletion', Gap 'gapping', VP 'VP-ellipsis', NCA 'null complement anaphora', ABS 'absent verb structure or Saint Isidore's ellipsis', SI 'sluicing', FA 'fragment answer', OF 'other fragments'. Y stands for 'yes', N for 'no' and NA for 'not applicable'.

Table 2. Empirical properties of each candidate to ellipsis

Property	FPE	RNR	NP	CD	CSD	Gap	VP	NCA	ABS	SI	FA	OF
<i>Pragmatic access</i>	Y	N	Y	N	N	N	N	Y	Y	N	N	Y
<i>Cataphoric relations</i>	N	Y	N	N	N	N	Y	Y	NA	Y	NA	NA
<i>Sensitivity to subordinate clauses</i>	N	Y	N	Y	Y	Y	N	N	NA	N	NA	NA
<i>Sensitivity to islands</i>	N	Y	N	Y	Y	Y	Y	N	NA	N	NA	NA
<i>Optional character</i>	Y	Y	Y	N	N	Y	Y	Y	N	Y	Y	NA
<i>Allows extraction of constituents</i>	Y	NA	Y	NA	NA	Y	Y	N	NA	Y	Y	NA
<i>Preposition stranding as in other constructions</i>	Y	N	Y	Y	Y	Y	Y	Y	N	?	?	NA
<i>Case and negative polarity items as in other constructions</i>	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	N	NA
<i>Contains a relative pronoun for the ellipsis site</i>	N	N	N	Y	Y	N	N	N	N	N	N	N

6.1. Cases where there is (almost) certainly no ellipsis

First of all, we have found three cases where the evidence points out to the conclusion that we cannot talk about ellipsis, even in the broader sense which also treats as ellipsis cases of a silent pronoun (remember, some instances of Deep Anaphora according to Hankamer & Sag 1976; cf. §2.1). These cases are the following:

a) Absent verb structures, also called 'Saint Isidore's ellipsis cases', because there is no linguistic associate and the recoverability has to be driven by world knowledge, idiomatic meaning or other factors (§4.6)

b) Fragments not related to questions, where there was no linguistic associate and the recoverability depends on the extralinguistic context (§5.2.2)

c) Comparative deletion cases involving arguments or predicates, where Spanish uses a relative clause with a pronominal element (§3.3 and §4.5)

6.2. Cases where there is (quite) clearly a silent pronoun

Full argument ellipsis in Spanish is clearly not the ellipsis of a syntactic constituent, but the insertion of a silent pronoun. This conclusion is reached on the basis of the following properties:

- a) The pronoun can take its reference from the extralinguistic context
- b) The availability of the silent pronoun depends on definiteness, genericity and topicality, which play no role whatsoever in the standard cases of ellipsis
- c) Silent pronouns are not sensitive to the presence of islands

Probably, NP-ellipsis should also be considered in the same way:

- a) NP-ellipsis can also take its reference from the extralinguistic context
- b) NP-ellipsis can act through islands and syntactic constituents of increased syntactic complexity

The fact that NP-ellipsis is not sensitive to definiteness, genericity or topicality trivially follows from the proposal that the D area is not affected by ellipsis in these cases: the elided material excludes the heads that are responsible for defining reference, definiteness and topicality.

Another clear argument to conclude that these are cases of empty pronouns and not of ellipsis in the strict sense, meaning 'cases where some syntactic material has been phonologically deleted', is the absence of cataphoras in these cases (remember §2.2). As we saw, cataphora is restricted when the two elements are in an argument position, due to Principle C (remember the contrast between the two sentences below, Bosque 1993):

- (406) a. La de Juan era una familia extraña.
 the of Juan was a family strange
 b. La de Juan conoció a la familia de Pedro.
 the of Juan met DOM the family of Pedro

Full pronominal ellipsis and NP-ellipsis reject cataphoric relations when the associate is in an argument position:

- (407) a. *pro_i encontró que Luis_i estaba enfermo.
 pro found that Luis was sick

- b. *El_i de Carlos chocó contra el coche_i de Pedro.
the of Carlos crashed against the car of Pedro

Null complement anaphora (NCA) also shows properties expected of a structure with an empty pronominal.

- a) NCA is not sensitive to subordinate clauses or islands

(408) Pedro no tendrá un hijo si María se niega <a tener un hijo>.
Pedro not will.have a son if María se refuses <to have a son>

- b) NCA disallows extraction of constituents from the possible ellipsis site

- c) NCA allows pragmatic antecedents

Note that, even though NCA allows cataphora, the category substituted for a possible pronominal would not be a referential argument, but a clause, and clauses are not subject to Principle C, which means that nothing can be really concluded from here.

(409) Luis se niega, pero María tiene ganas de comprarse una casa.
Luis se refuses, but María has will of to-buy a house
'Luis refuses, but María would like to buy a house'

Note that in the theories where ellipsis (or at least some types of ellipsis) is allowed as a term to describe also situations where a silent pronominal occupies the place of the silent material, these would also be cases of ellipsis, even if they do not involve deletion of linguistic material.

6.3. Candidates for a real ellipsis operation

The rest of cases of alleged ellipsis in Spanish are at least candidates for a traditional ellipsis account, involving syntactic structure that is phonologically empty –through an operation or deletion or some other processes–. However, each one of them has its own complications.

From all the cases that we have analysed in the three previous sections, perhaps the one that shows more properties that would be unexpected of a pronominal is gapping (strict gapping or stripping). Here we summarise its properties:

- a) Gapping disallows any type of pragmatic associate
b) Gapping is sensitive to subordination and islands

However, there are two facts that make the ellipsis analysis problematic for varieties of gapping. The first one is that gapping must always be anaphoric, and never cataphoric:

(410) *Juan <trajo> manzanas y Pedro trajo peras.
Juan <brought> apples, and Pedro brought pears

The second one is that islands allow gapping if there is a comparison notion associated to it. We have seen that comparison is a notion that generally licenses ellipsis in many contexts, and that comparative clauses generally allow it. This is not problematic if comparatives are a type of coordinate structure (as Moltmann 1992) argued, but it is more problematic in cases where comparison is implicit and the syntax seems to be of a subordinative type:

- (411) Si Pedro entrega un artículo, María <entrega> una tesis.
if Pedro delivers an article, María <delivers> a thesis

Sluicing also presents a more complex situation. In favour of an analysis involving ellipsis, we have the following facts:

- a) The possibility to extract elements from inside the ellipsis site
- b) The broad range of connectivity effects that sluicing displays

However, there are three facts that suggest that sluicing may not be a case of ellipsis by deletion:

- a) The instances where there is no connectivity in terms of case or preposition stranding, which however some authors analyse as an underlying cleft syntax for the ellipsis site (§8.3).
- b) The possibility of having multiple sluices, in contrast to the sharp ungrammaticality of multiple wh-interrogatives in the first position in the absence of ellipsis.

- (412) Alguien trajo algo, pero no sé quién qué <trajo>.
someone brought something, but not know.1sg who what

- (413) *¿Quién qué trajo?
who what brought?

- c) The insensitivity to islands, from inside which the sluice may have been extracted:

- (414) Luis se pondrá contento si viene alguien, pero no sé quién.
Luis SE become happy if comes someone, but not know.1sg who

Finally, Right Node Raising is also a case of ellipsis that is candidate to a deletion account, but that also displays unexpected properties. In favour of the existence of syntactic structure inside the ellipsis site we have the following:

- a) RNR is sensitive to islands and subordination
- b) RNR cannot take as antecedent a pragmatic pronoun

However, RNR displays at least two properties that are unexpected if we have syntactic structure under the site and not a pronoun:

- a) RNR seems to allow preposition stranding in languages that otherwise lack it:

- (415) Esto depende de, y está causado por, tu conducta.
this depends of, and is caused by, your conduct

- b) The parallelism between the two elements is not complete: one can have RNR in a subordinate and a main clause at the same time:

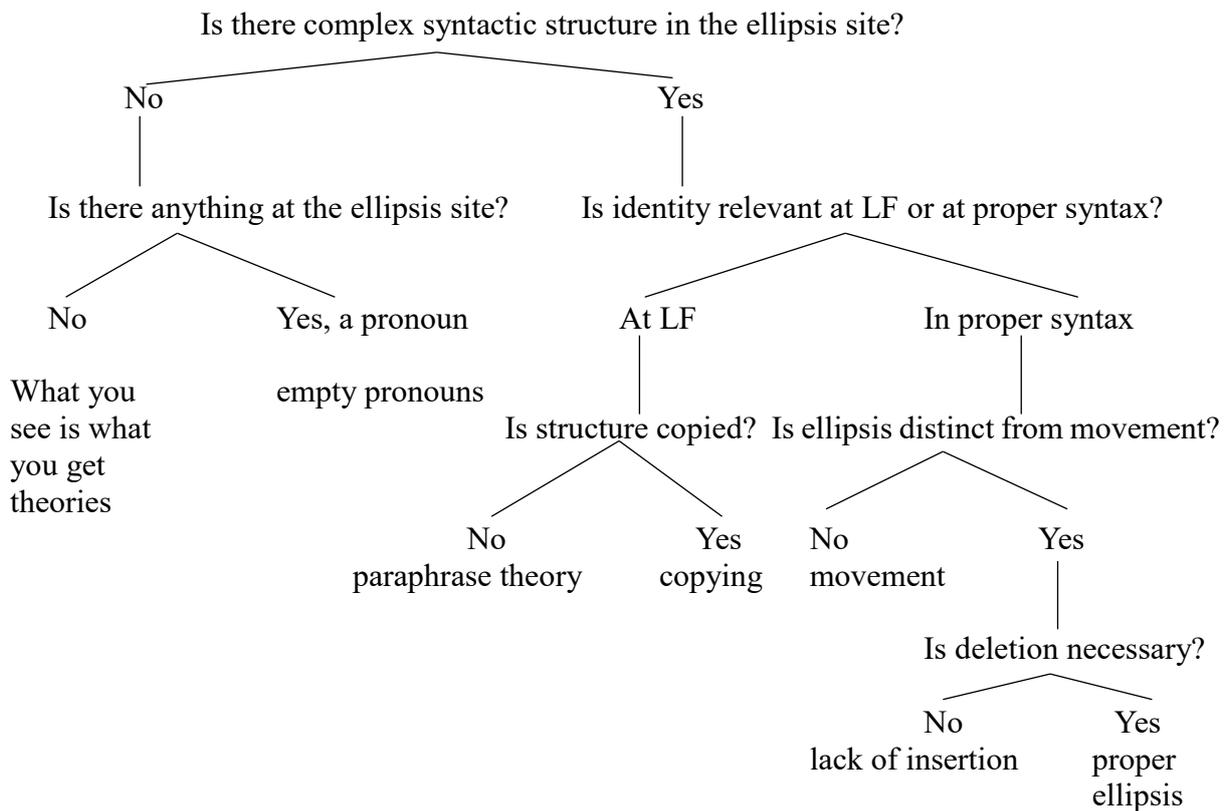
- (416) Juan compró, y Luis sugiere que María se comió, dos kilos de gambas.
Juan bought, and Luis suggests that María se ate, two kilos of shrimps

In addition to this, RNR would be the only case of ellipsis that is restricted to cataphoric relations.

7. Main theoretical options in the analysis of ellipsis

The next N sections will discuss the analytical and theoretical aspects of ellipsis in Spanish. In order to navigate the discussion in an orderly fashion, this section will present the reader with the main analytical distinctions that have been made in the current theoretical universe. The following diagram attempts to distinguish those theories in a clear way.

Diagram 1. Division of theories of ellipsis



The main problem that a researcher finds when navigating the theoretical literature is that 'ellipsis' is used in an ambiguous way, sometimes in the broad sense of 'there is something that we interpret here but that lacks an overt phonological correlate', and sometimes in a more restrictive sense that, in the best case scenario, means that there is full syntactic structure on the ellipsis site, and in more confusing cases includes also situations where the ellipsis site is occupied by an empty pronoun.

The first big division with respect to ellipsis is whether in the ellipsis site there is complex syntactic structure, parallel in some sense to the one displayed by the associate, or not. If the answer is answered negatively, we have a (quite reduced) class of analyses which argue that there is simply no silent constituent corresponding to the interpreted material and a second class of analyses where the ellipsis site is occupied by a pronominal expression of some type. On the other branch of the division, there is a division with respect to whether identity is relevant at LF or in proper syntax.

Theories where identity is relevant at LF can be subdivided in two: those that combine a syntactic pronominal and copy the structure of the associate at LF and those that allow for syntactic paraphrases provided that the result at LF is similar enough.

Theories where identity has to be established in proper syntax can be, in turn, subdivided in three groups: those where the ellipsis site is obtained through movement, and therefore there is

no distinct deletion operation, those where the ellipsis site involves full syntactic structure that is deleted, and theories where the ellipsis site contains full syntactic structure that is never spelled out.

The range of theories, then, can be described as follows:

a) What you see is what you get theories (WYSIWYG), which argue that there is nothing at the alleged ellipsis site and the only interesting operations happen in semantics, outside from LF even.

b) Empty pronoun theories not involving LF copying of complex structure, which for instance would be a popular solution for the full argument ellipsis in Spanish, which would therefore not be a case of 'ellipsis'.

c) Paraphrase theories, where there is syntactic structure, but the identity requisite is semantic and not syntactic

d) Copying theories, where an empty category occupies the ellipsis site at syntax proper but the empty category triggers copying of the associate's syntactic structure at LF

e) Movement theories, where the identity is syntactic but the ellipsis site is not different from any situation where there has been movement and lower copies are not pronounced

f) Non-insertion theories, where ellipsis involves marking some constituent so that exponents are not introduced at PF in that constituent

g) Deletion theories, where the constituent is erased at PF but was identical to non elliptical constituents up to that point.

In the most restrictive sense, ellipsis should refer only to those theories that (i) allow full syntactic structure in the ellipsis site (ii) with syntactic identity and (iii) involving a specific deletion operation. However, in the literature, the term ellipsis is used to refer to any case that proposes that there is some silent structure in the ellipsis site, which are all theories with the exception of the WYSIWYG theories.

It is important to note that, with the possible exception of theories claiming that there is no material at the alleged ellipsis site, which has the goal of reducing all ellipsis cases to the same type of analysis, the same researcher may argue for two or more of the ellipsis solutions depending on the empirical properties of the construction, for instance proposing that RNR and gapping involve movement while null complement anaphora and NP-ellipsis involve an empty pronominal.

8. Syntactic analyses of ellipsis

In this section, we will show how each one of the theories sketched in the previous section behave. As we already pointed out, the same researcher may advocate for two or more of the solutions above when treating different cases of silent structure, ellipsis in broad terms. For this reason, we will not show how each ellipsis type is dealt with in each one of the analyses, but rather concentrate on the ellipsis types that have been more central in shaping each one of the theories.

If we restrict 'ellipsis' to the effect of a specific deletion operation, the main competitors of an ellipsis analysis are the following:

a) Empty categories without internal structure in narrow syntax, with possible copying of the structure at LF

b) Syntactic movement, where there is an unpronounced copy in the alleged ellipsis site and the associate is the highest copy

c) Coordination of small conjuncts, sometimes even of non-constituents, without any silent element or combined with movement

8.1. WYSIWYG analyses and their problems: fragments, sluicing and comparatives

The what-you-see-is-what-you-get analysis proposes that there is no silent material of any type. This approach has received a considerable amount of attention in recent years, particularly due to the advent of the 'simpler syntax' proposal (Culicover & Jackendoff 2005). Simpler syntax starts from the following hypothesis, that they take to be inspired by Chomsky's calls to parsimony in analysis:

(417) The most explanatory syntactic theory is one that imputes the minimum syntactic structure necessary to mediate between phonology and meaning.

Obviously, this approach has significant consequences for the analysis of elliptical cases, as it will propose that no silent structure is needed when one can identify a general meaning procedure that supplies the right interpretation.

Specifically, Culicover & Jackendoff (2005) propose that apparent ellipsis cases can be resolved through a cognitive mechanism that they call SAME-EXCEPT. This domain general cognitive mechanism scans objects in a domain, extracting the properties that are identical (SAME) and those that differentiate them (EXCEPT). For instance, any human being, confronted with a bunch of birds, can identify aspects of them that are the same and aspects that differentiate them.

The idea is that the same mechanism underlies apparent cases of ellipsis. SAME-EXCEPT can be used, for instance, for fragments with a clear linguistic antecedent:

(418) A: John has been to Malaga.
B: No, Mary.

There is no need, according to Culicover & Jackendoff (2005), to propose silent structure that complements the fragment, that is, nothing like <has been to Malaga> needs to be posited. The idea is that speakers can use the SAME-EXCEPT mechanism in order to reconstruct that there are two propositions, *John has been to Malaga* and *Mary has been to Malaga*, and that they are the same except for the identity of the subject.

This approach has an interesting advantage. SAME-EXCEPT is a procedure that is inherently based on comparisons –scanning a set of entities in order to determine identical properties and different properties–. We have seen, interestingly, that comparison is a semantic notion that underlies many cases of ellipsis. In addition to pure comparative structures, we have seen that semantic comparison is crucial to license gapping in some islands:

(419) Si María entrega un artículo, Juan una tesis.
if María delivers an article, Juan a thesis

This is problematic within a syntactic perspective, because one would be forced to claim some comparative structure at some level, which somehow becomes a conditional, or alternatively because the comparison is not formulated at the syntactic level. They are in contrast strong arguments for the SAME-EXCEPT mechanism, which specifically argues that there is no syntactic structure needed.

The parallelism under ellipsis can also be explained in this approach. Compare the two instances of gapping:

(420) a. Juan fue a Madrid y María a Marbella.
Juan went to Madrid, and María to Marbella

- b. *Juan fue a Madrid y María con su tío.
 Juan went to Madrid, and María with his uncle

The problem of the second case of gapping, from the perspective of SAME-EXCEPT, is that comparison needs to compare equivalent elements. This is done in (420a), because one compares a subject and a goal, but in (420b) it seems that we compare a subject and a goal with a subject and a comitative. Parallelism, then, reduces in this approach to the conditions that cognitively drive the operation of comparison.

Another case of ellipsis that has been reanalysed as involving no silent structure in this approach is sluicing (§5.1). In sluicing, as we saw, there are different phenomena that are problematic for a full syntactic analysis: the sluice can escape islands, multiple sluices can appear in the remnant, sometimes preposition stranding is not respected. From the perspective of Culicover & Jackendoff (2005), then, these are arguments that there is no real syntactic structure in the alleged ellipsis site, and the complement of the verb is only the sluice.

Of course, connectivity effects are problematic in this approach. Here we summarise some of the main problems:

a) Selectional restrictions: verbs that cannot take DP objects, like 'wonder', should get a DP object under sluicing. Of course, Culicover & Jackendoff (2005) could still claim that a cognitive operation may solve the mismatch through the SAME-EXCEPT principle in this case.

- (421) a. *I wonder the menu.
 b. John read something, and I wonder what.

b) Case matching is more difficult to solve under these premises: sluices adopt the case that they would have if they were in the normal syntactic position. This is easy to solve if there is silent syntactic structure (the same projection assigns the usual case to them), but under the SAME-EXCEPT mechanism it is not trivial to understand how this happens: in general, case –at least structural case– is considered to be semantically inert, so it should not play any role on the comparison if that is a cognitive operation.

c) Non constituents. An approach without silent structure must extend the power of coordination to access non constituents, that is, coordination of objects that do not form a single unit in syntax or phonology. If there is no silent structure, in (422) below we are coordinating a clause with the set formed by a subject and a comitative, which do not form a single constituent to the exclusion of the rest of the structure.

- (422) Juan llegó con su madre y Pedro con su novia.
 Juan arrived with his mother, and Pedro with his girlfriend

In an approach with silent syntactic structure, one can propose movement of both the subject and the comitative to distinct positions in the CP or below, followed by deletion of the VP material. The constituent is the elliptical material, which has become a single unit to the exclusion of the two moved elements. This solution, however, is not available in the simpler syntax approach.

d) Coordination of incompatible elements: in a case like the following, simpler syntax expects that DPs and polarity markers may appear together without a clause:

- (423) Juan no vino, pero Pedro sí.
 Juan not came, but Pedro did

However, this can be shown to be impossible on independent grounds:

- (424) María habló con Pedro (*sí) en su casa.
 María spoke with Pedro yes at his place

This is, of course, expected if polarity markers must be hosted in a clausal position, because DPs do not have (in principle) clausal projections.

Beyond simpler syntax, the possibility that there is no silent structure has been also applied to comparatives in Spanish. Assuming that it is undesirable to let non constituents or constituents that cannot combine with each other in isolation, the debate has concentrated in cases like (425):

- (425) Juan es más astuto que María.
 Juan is more cunning than María

There are two options here: either ellipsis is proposed and there is some silent structure corresponding to *<es Deg astuta>* 'is Deg cunning' or there is no silent structure and one has to admit that syntactically we have a smaller constituent in the second term of comparison, with some complex semantic mechanism that builds the intended meaning.

All things being equal, the proposal that we are comparing the degrees of the same property and syntax reflects that with silent or overt syntax should be preferred, as that increases the isomorphism between syntax and semantics and respects semantic compositionality. However, the silent structure approach faces a problem: in this case ellipsis would be compulsory, and generally ellipsis is optional.

- (426) *Juan es más astuto que María es astuta.
 Juan is more cunning than María is cunning

A closer examination of the pattern of data, however, may show that this is a pseudo-problem. First of all, note that provided that the adjectives are different there is no compulsory ellipsis –that is just a case of comparative sub-deletion–:

- (427) Juan es más astuto que inteligente es María.
 Juan is more cunning than intelligent is María

With a different adjective, gapping can also be applied:

- (428) Juan es más astuto que inteligente María.
 Juan is more cunning than intelligent María

The ellipsis appears to be compulsory, I claim, due to the combination of two independent factors. The first one is that, as we have seen, Spanish does not allow the predicate ellipsis of the attribute with the copula as a remnant:

- (429) Juan no es astuto, pero María sí (*es).
 Juan not is cunning, but María yes (is)

Thus, attributes cannot be elided in the absence of copulas in Spanish. The second factor is that remnants of ellipsis are interpreted contrastively. This means that (430) is expectedly ungrammatical:

- (430) *Juan es más astuto que astuta es María.
 Juan is more cunning than cunning is María

Thus, unless we contrast the adjectives, the adjective cannot be a remnant, but there is no way to elide the adjective in a copulative sentence without eliding also the copula. Consequently, ellipsis in these cases seems to be compulsory, but it actually is not: what is compulsory is to establish a contrast with the remnants and to elide the copula with the predicate in nominal predicates in Spanish. The silent structure approach seems to be preferable here.

8.2. *Pro-form analyses and their problems*

The second option, that comes directly from Hankamer & Sag (1976) analyses of deep anaphora, is that the ellipsis site does not contain full syntactic structure but is not completely empty: there is an empty pronominal-like element in the ellipsis site. From this perspective, the three sentences in (431) are equivalent except for the presence of a silent pronominal in the last one. The standard analysis of Null Complement Anaphora (NCA) typically uses this analytical option.

- (431) a. Juan quería comprar una casa, pero María se negó a hacerlo.
 Juan wanted to buy a house, but María SE refused to do-it
 b. Juan quería comprar una casa, pero María se negó a eso.
 Juan wanted to buy a house, but María SE refused to that
 c. Juan quería comprar una casa, pero María se negó *pro*.

As we saw, the predictions that this pronominal analysis makes are that pragmatic antecedents should be possible, that no extraction from the ellipsis site is possible because there is no internal structure parallel to the associate, and even that syntactic parallelism with the antecedent is not even required. The analysis is adopted in Sag & Hankamer (1976), Fillmore (1986) –who compares NCA cases with indefinite empty pronouns, establishing a parallelism–, Depiante (2000, 2001), Cinque (2004) and Haynie (2010), among others.

NP-ellipsis is also typically treated by some as involving an empty pronominal element (see §8.7, though). Lobeck (1995) is one of the most influential analyses in this sense. Lobeck (1995: 20) notes that NP ellipsis generally involves, language after language, determiners with stronger inflection than the parallel cases without ellipsis. Remember for instance indefinite masculine singular determiners in Spanish, which must take overt *-o* when the noun is silent:

- (432) un-o e muy alto
 one-m e very tall
 'a very tall one'

Lobeck (1995) proposes that this is an effect of the need to license empty categories in a stricter fashion, among other things by agreement:

- (433) An empty, non-arbitrary pronominal must be properly head-governed and governed by an X specified for strong agreement.

Thus, the determiner needs to be associated to a strongly agreeing head, which triggers overt presence of the masculine marker.

A similar reasoning can be applied to full argument ellipsis (§3.1): it is impossible that part of the nominal appears overtly:

- (434) a. Los hermanos de María vinieron.
 the brothers of María came
 b. Los <hermanos> de María vinieron.
 the <brothers> of María came.
 c. *<los hermanos> de María vinieron.
 the brothers of María came

This position has not been completely uncontroversial, though. In addition to analyses where there is copying of the LF structure (Grimshaw 1979) or the verb lacks any complement (Napoli 1983, as a WYSIWYG version), others have argued that the absence of extraction may follow from the timing of ellipsis operations.

Specifically, Aelbrecht (2010) notes that VP-ellipsis, which is almost uncontroversially a case of ellipsis that involves some complex silent structure, allows A-movement in passives but not A-bar movement:

- (435) John must throw the garbage whenever it needs to be.
 (436) *John threw the garbage, but the articles he didn't.

Aelbrecht (2010) proposes that there is a timing difference between A-movement and A-bar movement, so that ellipsis happens in some intermediate point between them. A-movement applies before ellipsis and therefore an A-moved element can survive ellipsis, but A-bar movement happens later, and therefore does not survive ellipsis (see §8.7 above for further details). Van Craenenbroek & Merchant (2013: 710) suggest that one could also imagine that NCA involves silent structure, but the point at which that ellipsis happens is even later than A-bar movement, so that the apparent absence of extraction follows from here.

8.3. Paraphrases and their problems

We move now to analyses that allow complex silent structure on the ellipsis site, starting with those that impose a parallelism at a semantic level. In this approach, the material that is elided needs an antecedent and somehow reproduces it, but the reproduction must be faithful at a semantic level. This is called 'non isomorphic silent structure'. The requisite is that the syntactic structure that is elided must be semantically entailed, and therefore be a proper paraphrase, of the associate.

This approach has been formulated in Erteschik-Shir (1973), Polmann (1975), Rosen (1976), Lasnik (2001), Merchant (2001), Agüero-Bautista (2007), Vicente (2008, 2018), Abels (2011) and Saab (2015), who use it in particular within sluicing to approach cases that seem to form anti-connectivity effects. Remember the two main phenomena that, within sluicing, constitute a problem for the presence of syntactic structure:

- a) Preposition stranding may be possible in languages that otherwise do not allow it:
- (437) Juan habló con alguien pero no sé quién.
 Juan spoke with someone, but not know who
- b) Islands may be ignored in sluicing:

- (438) Juan se pondrá contento si viene alguien, pero no sé quién.
 Juan SE become happy if comes someone, but not know who

The way in which non-isomorphic structure helps in these cases is that the structure of the proposed ellipsis site is not syntactically identical to the associate, but instead adopts the shape of a cleft or copulative sentence. For instance, in our two cases:

- (439) a. Juan habló con alguien pero no sé quién <es esa persona>.
 Juan spoke with someone, but not know who <is that person>
 b. Juan se pondrá contento si viene alguien, pero no sé quién <es esa persona>.
 Juan SE become happy if comes someone, but not know who <is that person>

An argument for this approach is that contrast sluicing cannot ignore islands or do preposition stranding in languages that otherwise disallow it:

- (440) *Alguien habló con Luis pero no sé quién más.
 someone spoke with Luis, but not know who else
 (441) *Alguien se pondrá contento si viene Luis, pero no sé quién más.
 someone SE become happy if comes Luis, but not know who else

The reason, according to these analyses, is that there is no paraphrase of the subordinate involving a cleft or a copulative in these cases:

- (442) *Quién más es esa persona.
 who else is that person

The paraphrase approach can also explain away apparent cases of left branch extraction. The following two sentences contrast:

- (443) a. Juan contrató a un trabajador astuto, pero no sé cómo de astuto.
 Juan hired a worker cunning, but not know how of cunning
 'Juan hired a cunning worker, but I don't know how cunning'
 b. *¿Cómo de astuto contrató Juan a un trabajador?
 how of cunning hired Juan DOM a worker?
 Intended: *'How cunning did Juan hire a worker?'

With a paraphrase, one does not need left branch extraction:

- (444) Juan contrató a un trabajador astuto, pero no sé cómo de astuto <es ese trabajador>.
 Juan hired a worker cunning, but not know how of cunning <is that worker>
 'Juan hired a cunning worker, but I don't know how cunning'

The approach can also be extended to fragment answers:

- (445) A: ¿Con quién hablaste?
 with whom spoke.2sg?
 'Who did you speak to?'
 B: Juan <es esa persona>.
 Juan <is that person>

However, this approach has problems. An obvious issue is how to restrict paraphrases so that the system does not explode and predicts that a good number of ungrammatical ellipsis are actually possible. The literature tries to restrict paraphrases to copulative sentences or clefts, but it is unclear why this should be the case, or what these structures have of special to be allowed paraphrases. Note that if we allow any type of paraphrase, ellipsis should become dangerously close to deep anaphora, which is an undesired result.

Finally, it is important to note that this family of analyses can also be considered cases of strict ellipsis –that is, involving deletion– provided that the deletion is sensitive to the semantic information and not to the syntactic configuration. In order to do so, one is forced to flexibilise a potential operation of 'deletion' so that it can be applied on syntactic structures that lack an identical parallel, provided that there is enough semantic information to recover the silent structure. This puts the same problem of restricting the paraphrases under a different light: deletion should be able to apply to anything that can be semantically recovered from context, a position that predicts cases like the following, where an ellipsis analysis is unlikely:

- (446) Carlos perpetró muchos <delitos>.
 Carlos perpetrated many <crimes>

The verb *perpetrar* 'perpetrate' can only be applied to crimes, so one could argue that its presence should be enough to recover the deletion of a general noun like 'crime', but the sentence is ungrammatical unless the previous context has a mention to the noun *crime*.

8.4. Empty category with LF copying and its problems

The next theory proposes that there is no syntactic structure throughout the whole derivation, and instead there is an empty category which is inherently silent, which gets interpreted somehow at LF. Grimshaw (1979) made precisely this proposal for null complement anaphora, which she treated as involving an empty category that at the semantic component would be interpreted as anaphoric through a non-syntactic operation:

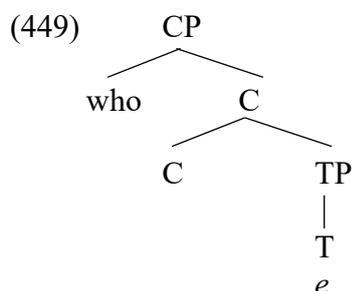
- (447) Juan quiere tener un hijo, pero María se niega *e*.
 Juan wants to.have a son, but María SE refuses

This approach without full syntactic structure at the ellipsis site, and consequently the need to establish some semantic operation that supplies the interpretation, is advocated for in Shopen (1972), Wasow (1972), Williams (1977), Hardt (1993), Chung, Ladusaw & McCloskey 1995, Lobeck (1995), Lappin (1999) or Fortin (2007), and it underlies the whole vehicle change approach in Fiengo & May (1994), which in fact capitalise on situations where the identity of syntactic features and constituents is necessarily determined on a semantic basis.

Perhaps the clearest instantiation of this approach in modern times is Fortuin (2007, 2011). Consider sluicing. In an approach involving an empty category with LF copying, the syntax of the two sentences is different:

- (448) a. Juan vio a alguien, pero no sé a quién vio.
 Juan saw DOM someone, but not know DOM who saw
 b. Juan vio a alguien, pero no sé a quién.
 Juan saw DOM someone, but not know DOM who

In the sentence with sluicing, for instance in the Chung, Ladusaw & McCloskey (1995) analysis, there is no syntactic movement and the remnant is base-generated on the specifier position of a CP whose complement is a non internally complex empty TP:



The semantic interpretation, which crucially links the wh-element (an operator) with a variable, happens at LF: the structure of the associate is copied in the place of e, which presumably has some feature that instructs LF of such copying, and the variable corresponding to 'someone' is added. An important assumption here, but a standard one, is that operator-variable relations are relevant at LF, but not in syntax, so that syntax can function with an operator that lacks a variable, but LF crucially needs that the operator binds one.

The strength of this approach is any phenomenon of non-connectivity. The possibility of ignoring islands in sluicing is automatically explained away because there has been no movement; all that one needs is to allow (some type of) operators to access somehow within islands, a phenomenon that is independently attested –for instance, note that the following sentence allows a wide scope reading of the existential within the island, in the interpretation 'A particular doctor will visit all the patients'.

- (450) Todos los pacientes se pondrán muy contentos si un médico viene a la consulta.
 all the patients SE will.get very happy if a doctor comes to the consultation
 'All the patients will be very happy if a doctor comes to the consultation'

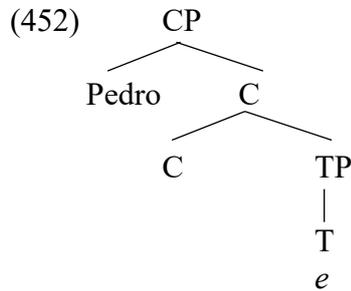
The possibility of having multiple wh-elements is also immediately accounted for in this approach: Spanish allows two wh-elements in sluicing because there has never been multiple wh-movement, as the wh-elements have been base merged in spec, CP.

The mismatches with preposition stranding, similarly, can be explained without the need to flexibilise the identity relations and propose other syntactic sources. The reason why the P is not there, presumably, is that preposition stranding is a syntactic phenomenon, and the wh-element has never been extracted from inside the PP. All it takes is to establish the operator-variable relation within the PP.

A second broad type of ellipsis where this analysis is particularly promising is in fragment answers. Intuitively, in a fragment answer the person that provides the answer is associating the remnant to whatever logical form the question adopted. As in sluicing, also in fragment answers there are non-connectivity effects related to preposition stranding and case mismatches:

- (451) A: - ¿Con quién hablaste?
 with whom spoke.2sg?
 'Who did you speak to?'
 B: - Pedro.

It is tempting to associate the sentence to a structure like (xx), where Pedro occupies an underived focus position and the speech act that the question codifies triggers the copying at LF of the clausal structure provided by the speaker.



The problems of this approach are, of course, any connectivity effect that may appear robustly attested in the ellipsis type. While the parallelism with voice and other elements may be explained because the associate provides the template for the syntactic structure, the preservation of case is more complex to explain. In principle, structural case should not be semantically interpretable, so it is difficult to explain why case is preserved when the structure only appears at LF. Of course, one way out would be to claim that structural case has some semantic interpretation, but that is a non-standard position.

8.5. *Movement or multidominance and its problems*

The movement analysis as an alternative to deletion has been proposed in particular for gapping and Right Node Raising; in fact, the second takes its name from the original Ross' analysis, that argued for rightward movement of the complement that seems to be elided in the first conjunct. Let us review the analyses that have made this proposal.

Let us start with gapping. Although it has been proposed in the literature, an account with movement out of coordinated elements –remember that gapping is licensed in coordination, if one includes under that label comparatives and exceptives– cannot work unless movement happens in parallel from both conjuncts. Ross (1967) formulated the Coordinate Structure Constraint:

- (453) a. Juan y María vinieron.
 Juan and María came
 b. *¿Quién_i vinieron *t_i* y María?
 who came and María?

Movement from within coordination is possible provided that one has Across-the-Board movement (Williams 1978), that is, parallel movement out of the two conjuncts:

- (454) a. Leyó novelas de detectives y cuentos de terror.
 read novels of detectives and tales of terror
 'She read detective novels and tales of terror'
 b. *¿De qué_i leyó novelas de detectives y cuentos *t_i*?
 of what read novels of detectives and tales?
 c. ¿De qué_i leyó novelas *t_i* y cuentos *t_i*?
 of what read novels and tales?
 'About what did he read novels and tales?'

Gapping has been analysed as ATB movement in Johnson (1996, 2009). In a sentence like (455), the VP moves across the board to the T that dominates the conjuncts:

- (455) Juan d_i -ió [t_i manzanas a Luis y t_i peras a Carlos].
 Juan give-ed apples to Luis and pears to Carlos

The idea is that (i) the conjuncts are verbal phrases that share one single T node, which dominates both; (ii) after movement of the remnants, the VP contains the verb and therefore becomes a single constituent to the exclusion of those remnants; (iii) the VP moves across the board in the two conjuncts at the same time, to a position outside the conjuncts but lower than TP and (iv) from that position, movement to T happens as usual.

Note that this type of analysis automatically derives the impossibility of having cataphora in gapping structures:

- (456) *Juan manzanas y María trajo peras.
 Juan apples and María brought pears

Provided that movement is upwards / to the left and complements are linearised to the right in Spanish, this property follows automatically from movement.

Cases where more material than TP is shared across the two conjuncts, such as the following, can receive a simple explanation:

- (457) Juan le dio a María un libro y Luis, manzanas.
 Juan her gave to María a book, and Luis, apples
 'Juan gave María a book and Luis, apples'

Either the VP contains the dative when moving across the board, or the verb and the dative move across the board independently. Note that in this account, movement of the verb has to be movement of the whole VP containing any material that did not move out of it.

Another advantage of this movement analysis of gapping is that it explains why gapping is ungrammatical when the gap is within subordinate clauses that are coordinated: if VP movement across the board is clause-bound, that result would follow.

- (458) ??Juan dice que dio peras a Carlos y Luis dice que a María, manzanas.
 Juan says that gave pears to Carlos and Luis says that to María, apples

Vicente (2010) notes that this account has problems related with the independent motivation of movement. In principle, the gapping possibilities should be restricted to which clausal chunks within the language in question are able to move. Johnson (2018), in fact, does not consider cases where the remnant is the subject amenable to this type of across-the-board analysis because in these cases the analysis requires movement of a TP and English does not provide evidence of movement of TPs.

- (459) Juan no trajo las manzanas, pero María sí.
 Juan not brought the apples, but María did

In the example, unless we want to say that the subject *María* lacks case, the second conjunct must contain a TP with a proper subject position (something independently suggested by the presence of the polarity item *sí*). One option would be to move the subject to a focus position,

and displace across the board the TP below the polarity markers, but TP movement is otherwise unattested.

One related problem is that VP movement containing the verb and at least one other constituent is predicted to be possible, but at least in topicalisation it is not allowed:

- (460) a. Run, Mike did quickly.
 b. *Read books, Mike did quickly.

The problem applies to English, as in Spanish (at least when the VP and the inflected verb can be told apart) this is possible:

- (461) Leyendo libros es como estaba Juan.
 reading books is how was Juan
 'Reading books is what Juan was doing'

The third problem is the existence of subordinate clauses that allow gapping under semantic comparison but which display the syntactic structure of conditionals, temporals and so on. The movement account crucially relies on the existence of a coordination relation between the two elements, so those cases would have to be somehow reduced to syntactic coordination.

Finally, this account cannot in principle account for superficially similar cases involving fragment answers –which may simply be a reason to restrict gapping to coordination and comparison cases, and treat fragment answers as their own structure–. The reason is, obviously, that in the fragment answer the question and the answer do not form a unit for the purposes of syntax, making an across the board movement account impossible.

To conclude with gapping, the solutions in this account are basically two. Either one expands the movement possibilities in coordination with respect to those independently attested in other cases, or one needs to restrict the movement analysis of gapping to a subset of the cases that have received this term, and propose another account for cases that –for instance– involve TPs. It is not implausible in principle that gapping, as a term, covers two or more distinct structures, because gapping is defined by a surface property, in descriptive and pre-theoretical terms, but at a minimum this means that movement could not be used to remove 'deletion' as an operation.

The movement analysis is more prevalent in the Right Node Raising (RNR) cases. In fact, the name given to this construction comes from the fact that Ross (1967) originally analysed such cases as the rightward movement of the complement. Adapting the operation to a more modern terminology:

- (462) Juan [enviará un mail t_i y entregará el informe t_i] a cada paciente $_i$.

This account has several advantages. First of all, it reduces the need to postulate deletion. Second, it explains why RNR, like gapping, prefers coordination and comparison and is sensitive to islands, subordination and other intervening elements. Third, it also explains why the identity has to be so strong in the case of RNR, as the ellipsis site and the associate are literally the same element. Finally, as rightward movement seems easier when the syntactic and phonological material of the moved entity is heavy, it also explains that RNR sounds better with heavy NPs:

- (463) a. Juan [etiquetará t_i y guardará en el archivo t_i] las cartas que recibas $_i$.
 Juan will.stamp and will.put in the archive the letters that receive.2sg
 'Juan will stamp and file the letters that you receive'

- b. ?? Juan [etiquetará t_i y guardará en el archivo t_i] eso.
 Juan will.stamp and will.put in the archive that

The main problems that this account has are related to situations where it is unclear that movement could have happened. In particular, RNR in Spanish would involve preposition stranding if it involved movement.

- (464) No estoy ni satisfecho de ni enfadado con los nuevos trabajadores de la empresa.
 not am neither satisfied of nor angry with the new workers of the company

Secondly, the second conjunct in RNR has a tendency to be pronounced in a parenthetical fashion, something that is at odds with an analysis where the coordination is syntactically real and therefore allows ATB movement.

Third (and this is a problem shared with pure deletion accounts) sometimes RNR involves interpretations that are simply unavailable with movement or deletion. Consider the following sentences (Jackendoff 1977):

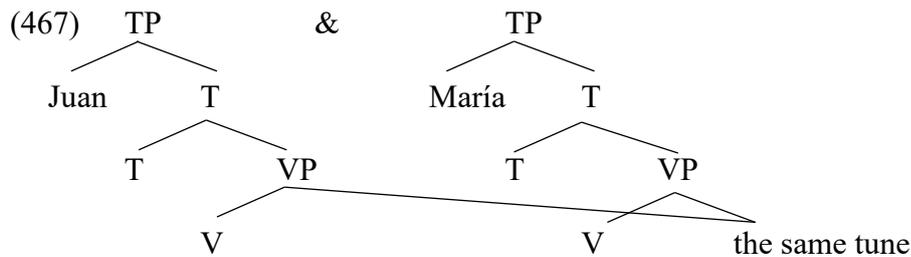
- (465) a. Juan silbó, y María tarareó, la misma melodía.
 Juan whistled, and María hummed, the same tune
 'Juan whistled the same tune as María hummed'
 b. Juan silbó, y María tarareó, una melodía diferente.
 Juan whistled, and María hummed, a tune different
 'The tune that Juan whistled is different from the tune that María hummed'

The problem is that the sentence is either ungrammatical or gets a different interpretation if one assumes that the source is like (466), which is necessary for movement or deletion:

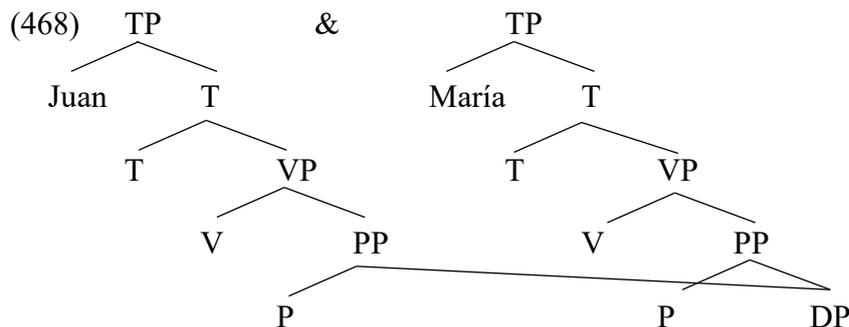
- (466) a. #Juan silbó la misma melodía y María tarareó la misma melodía.
 Juan whistled the same melody, and María hummed the same melody
 'Juan whistled the same melody (as someone else) and María hummed the same melody (as someone else)'
 b. #Juan silbó una melodía diferente y María tarareó una melodía diferente.
 Juan whistled a melody different, and María hummed a tune different
 'Juan whistled a tune different (from someone else) and María hummed a tune different (from someone else)'

This problem extends to any approach where there are two objects; it does not get solved through movement or deletion, in principle (unless one wanted to argue that movement is compulsory precisely to scope over the two conjuncts and get the right interpretation, which as far as I know is not a proposal that has been made).

In contrast to these approaches, Wilder (1999) proposes a multidominance approach (McCawley 1982), where literally there is only one object that is shared by the two predicates. The object establishes a multiple dependency with the two predicates, as in (467):



One could speculate that this shared structure is only possible, all things being equal, under coordination: in the same way as ATB movement is possible, the parallel nature of coordination would license this multidominance. Note that this would also solve the problem of apparent preposition stranding:



This approach reduces the need to propose a deletion operation (at least for RNR) but to the cost of allowing syntactic structures which, in a sense, break with the idea that the relations that each (copy of a) constituent must establish one single structural relation with the rest of the structure.

A potential complication of this approach is the need to propose as many parallel working spaces as structures later on linked through multidominance are required. Although parallel working spaces are implicit in many standard approaches (eg., in order to build complex specifiers not obtained through movement), note that multidominance additionally requires that an element from one working space is accessible to another working space –or alternatively, that multidominance is a way to link structures in different working spaces–. In either case, contra the Multiple Spell Out theory (Uriagereka 1999), which requires spell out of the constituent built in one working space before it can be merged in a second working space, constituents must remain active at the point where they are combined within the same tree.

8.6. *Unpronounced full syntactic structure*

We finally arrive to the analytical account that is more closely related to the traditional understanding of ellipsis, that it is the result of a phonological deletion operation –alternatively, insertion of phonological material is never done, see §8.7 below for how one can differentiate the two approaches–.

This view of ellipsis as deletion has the initial problem that it would require positing an independent operation which is in principle distinct from the non-pronunciation of lower copies.

Chomsky (1971, 1972) is a clear instance of this type of analysis. He proposed a particular deletion operation –'deformation'– that tried to capture Ross' (1969) idea that island effects were caused by a surface property. Chomsky proposes that at surface structure syntactic nodes that constitute islands are marked with a diacritic #. When # is crossed in a movement transformation, ungrammaticality ensues.

(469) Who_i will he be very happy [# if t_i comes]?

Deformation removes the surface structure through deletion, and consequently also the # diacritic. As the ungrammaticality comes from a filter –a negative generalisation that applies at surface structure–, it disappears when the # diacritic is deleted with the rest of the representation:

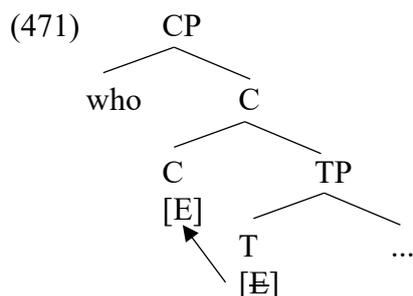
(470) He will be very happy if someone comes, but I don't know who_i ~~will he be very happy~~ [# if t_i comes]

This position, in its literal implementation, cannot be kept in the current theoretical universe, because diacritics cannot be present at the representation of syntactic structure, and because island violations are generally interpreted as problems involving the distance between a moved element and its trace or, alternatively, as the impossibility to extract something from a syntactic domain that is assumed to be closed. However, the idea has been resurrected in modern times, particularly in Merchant (2001).

In Merchant's (2001) account ellipsis involves deletion at PF. He proposes that some islands are PF islands, just as in the Chomsky approach, but that this does not cover all cases of islandhood and therefore not all islands can be repaired by deletion.

In this account, some nodes –to be empirically determined– can have a feature E that marks the domain as not subject to a PF representation. In principle, this can be implemented as meaning that the phonological material of that constituent is literally deleted or as meaning that there is no insertion of phonological features in that constituent (see Merchant 1999, 2001; Aelbrecht 2010), but Merchant (1999: 81) suggests that the constituent is skipped at PF for purposes of parsing and production. The approach is, in fact, mute with respect to the phonological implementation of this feature (see the articles in Lipták & Günes 2022 for a recent overview and discussion).

Let us illustrate this with sluicing. The idea is that when sluicing happens, an inflectional head (I in Merchant's explanation, let us label it T) has a feature E. This E must be checked by a particular type of C head. Once it is checked –by movement– it instructs the PF component that the complement TP will not get a PF representation.



The reason to propose that E generates in T and moves to C is to avoid that TP can be deleted in any situation; it can only be some specific interrogative C that is present for the deletion of TP, as sluicing is restricted to subordinate interrogative clauses. This also explains that some Cs, even though they are interrogative, fail to license sluicing.

(472) *Alguien debe venir, pero no sé si <alguien viene>.
 someone must come, but not know if <someone comes>
 *'Someone should come, but I don't know whether'

E as a feature is semantically interpretable. Specifically, Merchant proposes that E forces a givenness requirement on the preposition:

(473) $[[E]] = \lambda p. p \text{ is Given}_{E.p}$

This means that, unless there are remnants that are focalised, there will be a presupposition failure: focalisation is necessary with givenness, as the whole structure cannot be given. Additionally, this is what explains that ellipsis happens with an associate, which is what makes the proposition given.

E can be associated to other syntactic effects, such as imposing identity at some level; it is basically a definitional matter.

Consider now how sluicing can repair islands. Merchant (1999, 2001) proposes that there are two types of islands: PF islands and propositional islands. PF islands are islands due to a surface PF condition, as in Chomsky's (1971) account, and in such cases the absence of representation repairs the island. Here are the islands that Merchant considers PF-islands:

a) Left branch extraction islands, such as (474):

(474) *¿Cómo de caro te has comprado [un coche ____]?
 how of expensive you have bought a car?
 *'How expensive did you buy a car?'

Sluicing saves this island, as we have seen.

b) COMP-trace effects (475):

(475) *Which senator is it probable that ____ will resign?

This island, which does not exist in Spanish, is also repaired by ellipsis.

(476) It's probable that a certain senator will resign, but which <it's probable that ____ will resign> is still a mystery.

c) Derived position islands, such as topicalisations and preverbal subjects:

(477) *¿De qué hermano Marx dijo que una biografía ____ se niega a leer?
 of which brother Marx said that a biography ____ SE refuses to read?
 *'Which Marx Brother did she say that a biography, she refuses to read?'

Sluicing also repairs that island.

(478) La biografía de un hermano Marx se niega a leer, pero no sé cuál.
 the biography of a brother Marx SE refuses to read, but not know which
 'The biography of one of the Marx Brothers, she refuses to read, but I don't know which one'

Merchant's claim is that these islands are islands due to PF conditions; for instance, that-trace effects are ameliorated as soon as additional phonological material appears between the trace and the complementiser:

- (479) a. *Which senator is it a pity that ___ will resign?
 b. ?Which senator is it a pity that tomorrow possibly ___ will resign?

His idea is that what makes these structure islands is some ban on the linear position of the trace with respect to the rest of the material; if the PF representation disappears, then there is no PF violation.

In contrast, other islands are syntactic islands, for instance those that are related to adjuncts, coordinate structures or complex NPs. In these cases, ellipsis does not avoid islandhood because the problem is not at PF. For these cases he proposes that the island violation is only apparent:

- (480) Vinieron Juan y alguien más, pero no sé quién.
 came Juan and someone else, but not know who

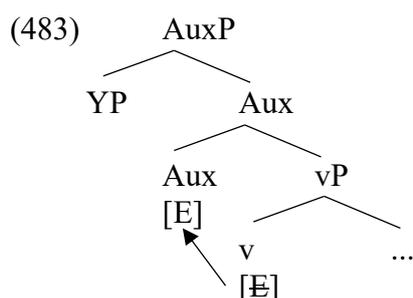
His proposal is that in such cases that seem to be island violations without PF repairs, the source of the remnant, as in Vicente (2008), is a paraphrase of the associate that does not involve a syntactic island. In other words: if, as Chomsky (1971) proposed, the structure of the sluicing case in (481) includes the island, the sentence would still be ungrammatical.

- (481) *He will be very happy if someone comes, but I don't know who_i ~~will he be very happy~~
~~[if _t comes]~~

The structure is grammatical because the source is a copulative sentence:

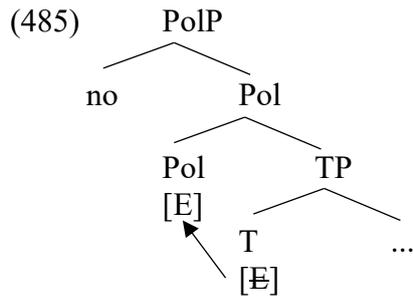
- (482) He will be very happy if someone comes, but I don't know who_i ~~is that person~~

From this perspective, cases of ellipsis that cannot overcome islands reduce to cases where there is no cleft or copulative source that can be used. For instance, VP-ellipsis would be such case, as it cannot ignore islands. VP ellipsis can be treated as a feature E in v that has to be checked by some auxiliaries and triggers deletion of the complement:



Stripping that only keeps the polarity item (as in 484) could in turn be an E feature in T that has to be licensed by the polarity item:

- (484) Juan trajo algo, pero María no.
 Juan brought something, but María didn't



Note, then, that in Merchant's analysis the E feature is crucial for ellipsis. The E feature has important semantic consequences, as we have seen: specifically, it imposes a requisite of givenness that in turn requires remnants to be contrastive. The analysis of NP-ellipsis, for instance, would impose that remnants are contrastive if it is taken to follow from the E feature plus ellipsis. As there are cases of NP-ellipsis that lack contrastive remnants (cf. §2.5), this can be taken as an independent argument that NP-ellipsis involves an empty pronominal and not a deletion account.

- (486) Juan ha leído los cuentos de Cortázar y yo también he leído los <cuentos> de Cortázar.
 Juan has read the tales of Cortázar and I also have read the <tales> of Cortázar

The situation is much more complex, though. As noted in §3.4, the most popular analysis of ellipsis of NPs is that it does not involve ellipsis as deletion, but the insertion of an empty category. Saab (2018), however, suggests that both situations should be possible.

In some cases of silent NPs, the interpretation of the silent NP is fixed, specifically to a human referent –a situation that reminds partially of some of the cases of empty pronouns–. This interpretation allows pragmatic antecedents, or conceptual semantic reconstruction, and does not require a linguistic associate.

- (487) He visto a los de al lado.
 have seen DOM those of to.the side
 'I have seen those that are next to us'

In this case, uncontroversially there is an empty pronominal (specifically, an empty nominal head which is inherently human) and no ellipsis in the strict sense, according to Saab (2018). In these cases, mismatches in gender are also possible:

- (488) las personas inteligentes y los tontos
 the people intelligent and the silly
 'intelligent people and the silly ones'

The first element is feminine grammatically, although semantically it includes both males and females, and still the second conjunct is masculine. This is automatically explained if here we have an empty nominal and no ellipsis as deletion.

According to Saab (2018), then, the next conjunct is not only ambiguous in its meaning, but also in the type of silent element that it contains.

- (489) los perros listos y los tontos
 the dogs smart and the silly

There is a first reading, 'smart dogs and silly dogs', which Saab associates to ellipsis proper; the second reading, 'smart dogs and silly people', would involve an empty nominal head without ellipsis proper. This conclusion is, however, not uncontroversial. An alternative analysis would be that here we still have a silent pronominal in the two readings, and what varies is whether the nominal solves its reading through the class of dogs that was just mentioned or using some general cognitive class, like 'all humans'. The two readings are not very different from those obtained in (490), where the empty pronoun can pick *Juan* as the antecedent or can access the external context and refer to any other (male) person:

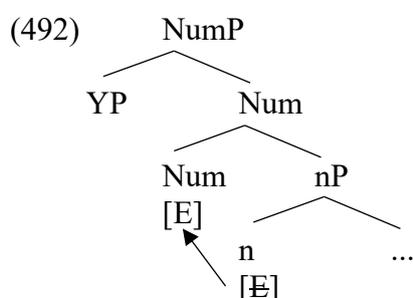
(490) Juan piensa que está enfermo.
 Juan thinks that is sick

Another argument that Saab (2018) provides relates to c-command: in (491), the silent noun assigns theta-role to the PP:

(491) los estudiantes de matemáticas y los de inglés
 the students of mathematics and those of English

If one assumes that the empty pronominal is always a [human] head that lacks thematic interpretation, then that case with a PP interpreted argumentally should be due to ellipsis as deletion. However, this assumes that theta-roles cannot be interpreted at LF unless they occupy designated syntactic positions (contra what Chomsky 1995 claims) and also that there is no empty nominal able to assign theta roles.

Be it as it may, Saab's proposal for cases of NP-ellipsis in Spanish are done as follows: Number licenses an E feature that instructs PF not to materialise nP, including gender. Gender, then, has to be identical but number can be non-identical:



As contrast is not necessary, Saab removes the givenness condition in Merchant.

Llombart-Huesca (2002), like Saab (2008), also argues that NP-ellipsis involves deletion. What this author, and later on Saab, does is to capitalise in the well-known observation that inflection in determiners can be stronger in the case of ellipsis than when the noun is overt, which we already mentioned in §8.2 as we discussed Lobeck (1995). However, the proposal in this case is that the strengthened inflection is not a condition to license an empty category, but rather a consequence of the PF absence of a nominal: as there is no phonological material at the noun level to support the gender marker, that affix is stranded and ends up attached to the determiner.

8.7. *What happens at PF?*

The popularity of deletion approaches in current research has moved part of the debate to the problem of what instructions PF receives so that the structure is unpronounced, a question

that was not solved in Merchant's proposal (see for instance Merchant 2004: 671). The options revolve along the following two questions:

- a) Does ellipsis involve transfer to PF?
- b) If the structure arrives to PF, is the phonological representation erased or is it simply not realised?

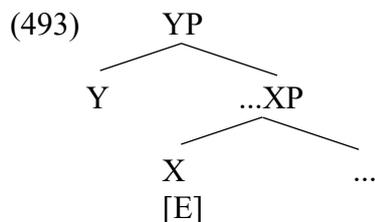
Several approaches treat ellipsis on a par with phases (Chomsky 2000), understood as 'complete' syntactic domains where all formal operations have been internally satisfied and which is transferred to LF and PF. Phases are defined by specific heads which tend to correspond to closed semantic entities, such as little *v* –an event–, *C* –a proposition– and *D* –a participant–. The phase head is useful for approaches that use the *E* feature, because that head may be viewed as the head that licenses the *E* feature and has the effect of applying the ellipsis to its structural complement.

The question is what happens precisely to make the complement of the phase head silent. One option is that ellipsis means not transferring the phase to PF, something that van Craenenbroeck & den Dikken (2006) propose. However, given that the elided material is interpreted at LF, this implies a strong asymmetry between the two interfaces, which is not standardly assumed in phase theory: part of the attractive of the theory is that PF and LF should function in tandem and without timing differences.

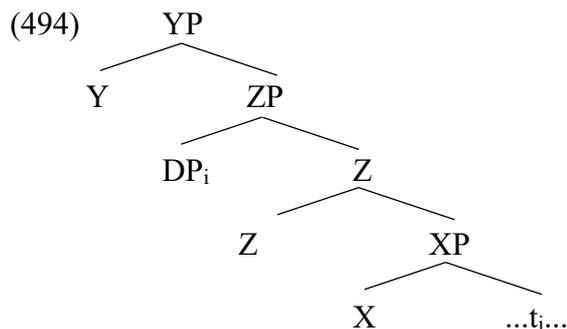
That is the reason that other authors have proposed that ellipsis is spell out, only that silent spell out. Wurmbrand (2017) proposes that the effect of ellipsis is imposing a zero spell-out to the domain of the phase, meaning that the structure will be transferred to PF but vacuously represented. The advantage of this approach is that, precisely, verbs, nouns and clauses are the main elliptical elements, as expected from phase approaches (see also Gengel 2008, Rouveret 2012, Boskovic 2014).

However, not all types of ellipsis can easily be associated to the standard phase heads: VP-ellipsis in English requires some head that is assumed to be higher than little *v* to elide the complement. Aelbrecht (2010), more in particular, proposes that the phasal head can be dynamically defined with respect to *E*, and that –in addition to potential language-variation with respect to phase heads– some specific types of auxiliary may have the capacity to license ellipsis.

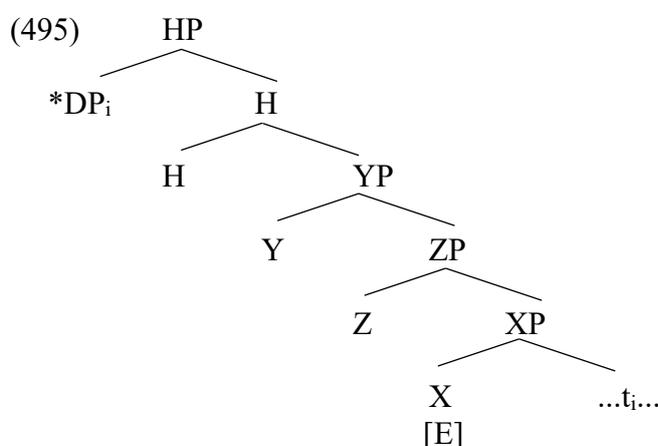
One advantage of this approach where ellipsis is transfer with zero representation at PF is that it may unify under the same operation a diversity of elliptical structures. Remember (§4.4) that null complement anaphora is treated as deep anaphora, among other reasons, due to the impossibility of extracting from it. Aelbrecht (2010) argues that this conclusion is not granted, and that the impossibility of extraction may be an effect of the timing of transfer. Specifically, imagine a head *X* that contains *E*, which has to be licensed by higher head *Y*.



Even though *X* carries [*E*], ellipsis will not be effective until *Y* is merged and checks [*E*], at which point the domain of *X* is transferred, becoming unavailable for extraction. From here it follows that an element contained under *XP* that moves to a position between *XP* and *Y* will be able to be extracted, because the movement happens before ellipsis is effective.



In contrast, movement operations triggered by heads above YP will be impossible, because at the point when movement can happen, ellipsis has already been effective and the element that may have moved is transferred together with the phase.



A prime example of this situation, as Aelbrecht (2010) argues, is VP-ellipsis, that allows A-movement but not A' movement. The proposal is explanatory given that A'-movement is triggered by higher heads than A-movement, supporting this timing account.

Note that in van Craenenbroeck and den Dikken's (2006) proposal, this option is not obviously present: if the material has not been transferred to PF, there are no reasons to believe that it has been frozen and become inaccessible, unless –and we run again into the problem of the asymmetry between

In contrast with these approaches, which propose that material never receives phonological content –we will discuss at which point later–, we have approaches where the material is spelled out but then deleted. Tancredi (1992) is generally credited with the proposal that ellipsis is radical de-accentuation. The intuition behind the idea is that elliptical content is informationally given: ellipsis cannot contain material that establishes a contrast with the associate. Informationally given material tends to be deaccented, to the same extent that contrastive material is typically emphatically accented. In Tancredi's view, ellipsis is just the next step in de-accentuation, involving non pronunciation. This in fact allows for ellipsis without movement of the remnants, using phonological instead of syntactic constituency: remnants that are contrastive and hence are not deaccented may be surrounded by deaccented material which undergoes ellipsis without affecting them.

As attractive as this view is, it faces problems that have made different researchers reject it. The most serious empirical problem is that, as Saab (2008) argues, remnants can also be informationally given, and still escape from ellipsis. If ellipsis was a result of de-accentuation, this situation would not be expected. However, similar proposals have been made with specific

types of ellipsis where the analysis is that some material is eliminated in order to obtain a more optimal phonological representation. Left-edge ellipsis, which is unattested in Spanish, is one such case (Napoli 1982, Wilder 1997, Weir 2012):

- (496) a. Wish you were here.
b. Done it?

In these cases, the subject *I* and the auxiliary *have* with the subject, which are unstressed, have been eliminated and the utterances have a prosodic profile with an initial stressed element. Weir (2012) argues that this is performed in informal speech to obtain sequences which start with a prosodically strong element; however, there is no obvious prosodic motivation in the rest of ellipsis cases that allows this explanation to be extended to them.

The final argument against deletion of phonological material, after it has been materialised, comes from defective verbs (Abels 2018b). Some types of defectivity (cf. Fábregas 2018) simply involve speakers being unable to produce the phonological form of a particular paradigmatic cell for some verbs. One such case in Spanish is *asolar* 'to destroy'. Speakers produce without any problems the forms that do not get stress on the root, such as the perfective:

- (497) La bomba asoló la ciudad.
the bomb destroyed the city

The problem emerges when the stress is placed on the root, in which case speakers apparently hesitate between diphthongising the root as *contar* 'tell' or not, as in *rondar* 'patrol'.

- (498) a. cuent-a
tell-3sg, 'he tells'
b. rond-a
patrol-3sg 'he patrols'
(499) a. *cont-a
tell-3sg
b. *ruend-a
patrol-3sg

This overabundance of possible forms, in a verb that is not frequent enough for speakers to learn which one of the two models it should follow, is what makes forms like the 3sg present indicative impossible.

- (500) ??asuel-a, ??asol-a

However, the problem does not emerge on ellipsis: the 3sg form, provided that it is elliptical, can be interpreted.

- (501) Una bomba asoló mi ciudad, y ahora estas bombas, la tuya.
a bomb destroyed my city and now these bombs, the yours
'A bomb destroyed my city, and now these bombs, yours'

If ellipsis involved insertion and then deletion, the availability of defective forms in ellipsis would be unexplained. However, if it involves non insertion, the pattern is perfectly explained:

speakers have a problem deciding the phonological shape that the form should get, but in ellipsis they do not have to determine the phonological form, and therefore everything is fine.

9. Syntactic height of ellipsis in Spanish

The goal of this section is to ask ourselves the question of which syntactic positions seem to license ellipsis in Spanish, now in broad terms, which also allow using the term to identify empty pro-forms. After all, the empty pro-form and the deletion / non insertion analysis share the property that some node must allow their presence.

9.1. Height in the clausal domain

The main generalisations in Spanish with respect to clausal domains and VPs are the following:

a) Spanish does not allow VP-ellipsis after auxiliaries (except modal auxiliaries) or passive auxiliaries

(502) a. Juan quiere tener un hijo, pero Ana no puede.

Juan wants to.have a child, but Ana not can

'Juan wants to have a child, but Ana cannot'

b. *Juan va a tener un hijo, pero Ana no va (a).

Juan goes to have a child, but Ana not goes

Intended: 'Juan is going to have a child, but Ana is not going to'

(503) *Juan fue arrestado por la policía, pero Ana no fue.

Juan was arrested by the police, but Ana not was

Intended: 'Juan was arrested by the police, but Ana wasn't'

b) Spanish does not allow predicate ellipsis after copulative verbs

(504) *Juan es más alto que María es.

Juan is more tall than María is

Intended: 'Juan is taller than María is'

c) Spanish does not allow pseudo-gapping

(505) *Juan debe hablarle al profesor y María puede a la maestra.

Juan should speak-him to.the teacher and María can to the master

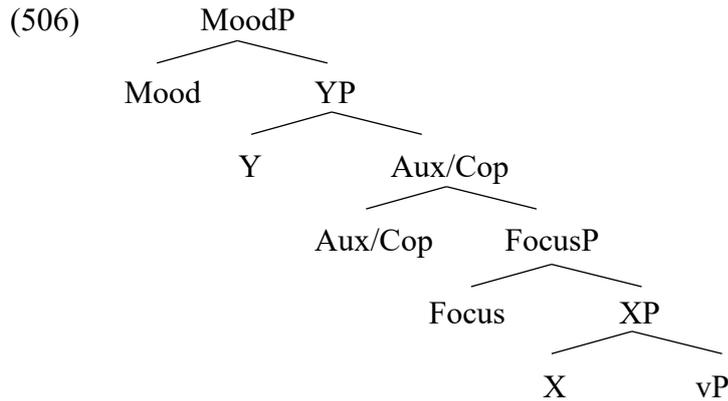
The empirical generalisation is that Spanish in the three cases must erase a constituent that includes the whole material within the verbal predicate, including the copula and auxiliaries.

The interpretation of these facts, which obviously show a difference with respect to English, can play with two possibilities: on the one hand, it may mean that the nodes that are marked for ellipsis in Spanish are higher than the nodes in English, so that English leaves outside auxiliaries and remnants but Spanish does not. Alternatively, this may mean that Spanish copulas and auxiliaries are lower than in English.

In the first account one could go like this:

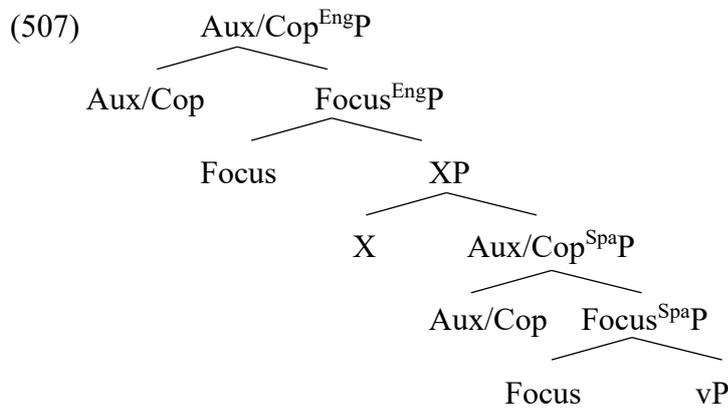
a) There is a node X marked for ellipsis in English. That node is lower than (i) copulative verbs, (ii) auxiliaries and (iii) the focus position where remnants can move.

b) That node X in Spanish does not license ellipsis; a higher node Y, higher than the three other positions mentioned, licenses it.



Importantly, the timing of ellipsis must be as soon as possible: if one could wait until T is merged to perform ellipsis, auxiliaries and copulas would survive, assuming they move to T.

The second approach would indicate that auxiliaries and copulas are lower in Spanish than in English, as shown here:



Like this, when X activates ellipsis, the Spanish auxiliaries and copulas would not survive, but when that happens in English, focalised elements and auxiliaries survive.

Note that both accounts can explain the existence of gapping:

- (508) Juan es alto y María, baja.
 Juan is tall and María, short

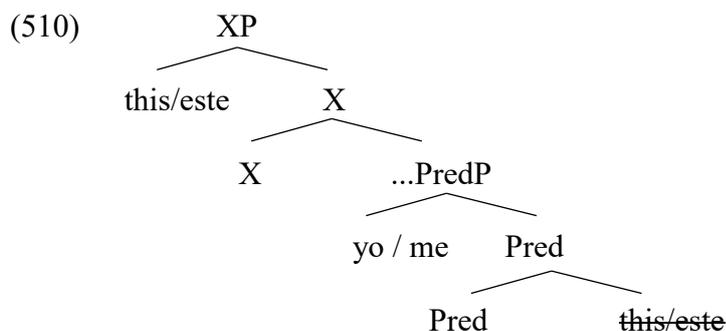
In addition to movement or multidominance, both proposals could propose that gapping happens when ellipsis is not activated at X or Y, but by a higher node Z above T and lower than the focus position of the remnants.

In order to differentiate between the two accounts, there are several facts that, in my opinion, favour the second option, with copulas and auxiliaries being lower in Spanish than in English. Notice first that English has very few auxiliaries, and most of them (discounting the copula) are modal verbs; in contrast, Spanish has a very high number of aspectual auxiliaries (around 120, according to García Fernández et al. 2006) which typically involve using as light verbs otherwise lexical verbs. This may suggest that what we call auxiliaries in Spanish is in fact a class of semi-lexical verbs, merged lower and closer to the lexical verb.

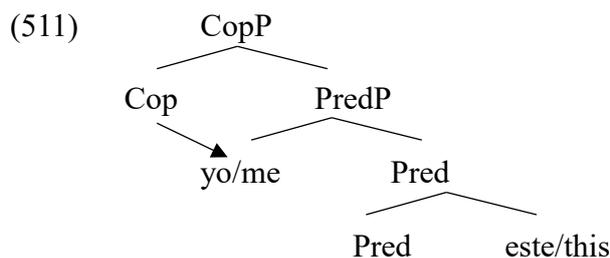
Secondly, English and Spanish (Brian Gravely, p.c.) display a systematic difference in inverse copulative sentences:

- (509) a. This {is /*am} me.
 b. Este {*es/soy} yo.
 this is/ am me

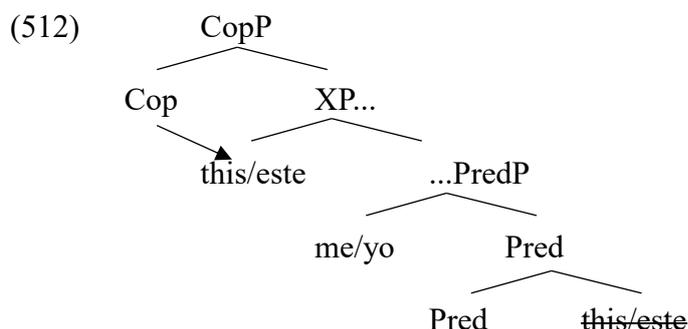
In Spanish, when the postcopular element has person, the copula agrees with it; in English, this does not happen. If we assume some version of the movement analysis of inverse copulatives (Moro 1998), with the more referential pronoun in a predication subject position and the predicate moving up (510), the position of the copula may help solve the issue:



Imagine now that Spanish copulas are merged under the position where 'this' moves. If the copula is merged before movement happens, the closes nominal that it will find is the person marked pronoun:



In English, if the copula is introduced after movement of the complement, the first nominal that it will find is the one that is not person marked.



The assumption is, of course, that copulas agree in situ in Spanish and English, without having to wait for T. Thus, this has considerable loose ends that make it only a speculation at this point.

Consider now clausal ellipsis. In Spanish, sluicing seems to behave just like in English, but there is a potential difference with respect to gapping with one single remnant, or stripping. In both languages a polarity particle must remain.

- (513) a. John ate the fish, and Mary *(too).
 b. Juan tomó el pescado, y María *(también).
 Juan had the fish, and María too

The potential difference is that it is generally assumed that the polarity phrase in English is lower than TP while it is higher in Spanish (Laka 1991). This explains that in English negation blocks head movement between T and V, but not in Spanish:

- (514) a. Juan no vino.
 Juan not came
 b. *John not came.

It also explains the contrast in (515):

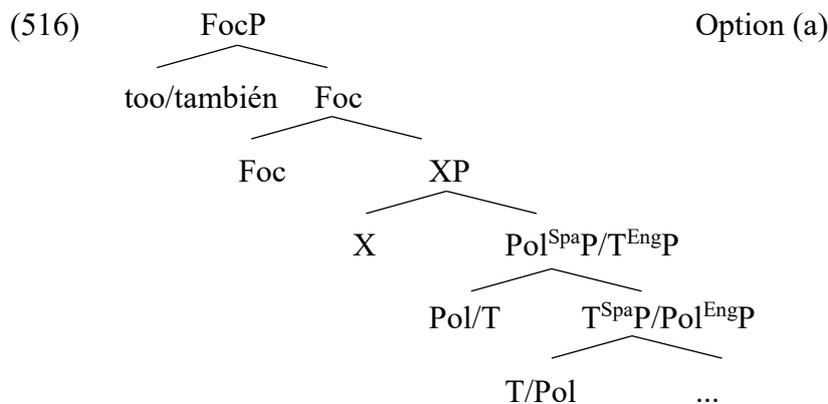
- (515) a. Nadie vino.
 nobody came
 b. *Anyone didn't come.

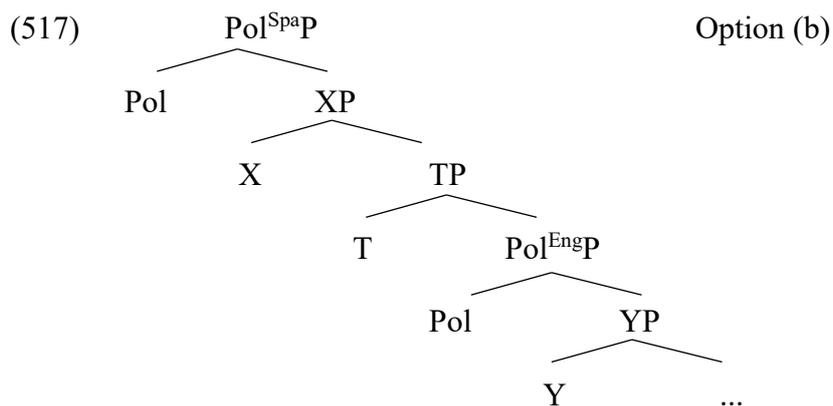
The idea is that anyone in English and *nadie* in Spanish must pass through spec, NegP to get licensed. In English that movement, which is to an A-bar position, happens before movement to spec, TP, which is an A position. That is ungrammatical, as an instance of improper movement (Chomsky 1986, an object can go from A positions to A-bar or to other A positions, but objects can only go to other A-bar positions from an A-bar position).

In contrast, in Spanish the subject can first move to spec, TP (A-position) and then to spec, NegP (A-bar position).

The fact that polarity elements are compulsory both in English and Spanish may mean two things, in principle:

- a) The same head, X, licenses ellipsis in both languages but remnant polarity markers move to a focus position higher than X in both languages
 b) In English stripping involves activation of ellipsis at a Y position, lower than both T and Neg, and in Spanish it involves activation of ellipsis immediately above T.



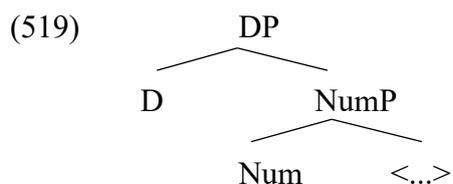


Here, deciding between the two accounts is simpler: English stripping does not necessarily leave the copula behind, so the first option must be right.

(518) John is tall and Mary (is) too.

9.2. Height in the nominal domain

Within the nominal domain, Spanish either applies ellipsis or introduces an empty pro-form in two positions, and only two. The first position is below Num:

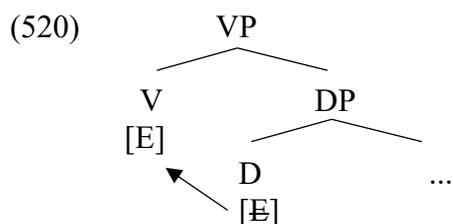


There must be a position for DP-internal movement for the remnants, whose position is difficult to diagnose, as number would anyways be spelled out as zero or as an *-s* which presumably could be reordered prosodically. Thus, that position may be higher or lower than Num, only that if we assume that the E feature is contained in Num it should follow that it is placed above NumP.

The second position is the head D itself, including that: this corresponds to full argument ellipsis, which does not allow any remnant.

Note, incidentally, that –if one wishes to argue that full argument ellipsis is PF invisibility due to an E feature– this approach makes interesting predictions with respect to the licensing of empty arguments.

Specifically, if the whole DP structure, without remnants, is elided, this correctly predicts that the licensing of an empty argument depends on the predicate that selects it, and which would license the E feature in a configuration that, in principle, reproduces the head-complement relation that used to be called 'proper government'.



This correctly predicts that some predicates license empty objects and others do not. Remember also, from §3.1, that empty arguments tend to be indefinite; this can also be explained if the only D that has an E feature is indefinite in Spanish. Of course this would not explain cases of deep anaphora with forced human interpretation, but it may be a way to account cases of possible ellipsis that do not receive a forced human reading, as in (521):

- (521) Busco dinero porque no tengo <dinero>.
 search money because not have <money>
 'I am looking for money because I don't have'

10. The problem of ellipsis inside morphological structures

Before we conclude this overview, we want to briefly discuss the problem of the apparent absence of ellipsis within so-called morphological structures. The general observation, better illustrated with compounding, is that a part of a compound does not license ellipsis.

In principle, a compound cannot contain an ellipsis site:

- (513) a. Juan es limpia-ventanas.
 Juan is clean-windows
 'Juan is a window-cleaner'
 b. *Le enseñamos las ventanas porque Juan es limpia<ventanas>.
 him showed.1pl the windows because Juan is clean-<windows>

The impossibility of NP-ellipsis cannot be related to the external syntactic structure; as we saw in §3.4.3, NP-ellipsis can cross adjunct islands:

- (514) Le enseñamos las ventanas porque Juan ha visto muchas <ventanas>.
 him showed.1pl the windows because Juan has seen many <windows>

The impossibility of containing ellipsis sites has been related in the literature with the general impossibility of introducing pronouns within compounds (Postal 1969):

- (515) *Le enseñamos las ventanas porque Juan es limpia-(el)las.
 him showed.1pl the windows because Juan is clean-them

This restriction has been interpreted in the morphological literature of lexicalist sign as one of the phenomena that argue for the modularity of morphology as a distinct component from syntax: ellipsis would be a syntactic operation (or an operation on another level that involves syntactic structure through PF deletion or LF copying) and would involve pronominal relations, while morphology deals with another class of objects, morphemes and words, and specifically compounding is restricted to lexical categories, and is therefore unable to include DPs and other functional nodes characteristic of compounds.

The empirical pattern is, however, not so clear when we invert the relation between associate and ellipsis site. In the same way that it has been argued that some types of compounding license anaphoric reference (Lami & van der Weijer 2022), there are data points that suggest that a part of a compound can license an ellipsis site, at least in the case of NP-ellipsis:

- (516) Como Juan es limpia-ventanas, ha visto muchas <ventanas>.
 as Juan is clean-windows, has seen many <windows>
 'As Juan is a window-cleaner, he has seen a lot of them'

Lieber (1992) finds similar examples where anaphoric pronouns can refer to the internal members of a word.

The data, however, suggest that words cannot contain ellipsis sites. The analysis of this pattern is quite controversial. Among the different options that one can consider we can highlight the following:

a) Proposing that morphology is independent from syntax. This, crucially, would only be feasible in approaches where ellipsis is purely syntactic. An account of the type of WYSIWYG (§8.1) would lack an explanation for this, unless some type of restriction is put on semantic interpretation that instruct speakers not to recover material from within words. Accounts where ellipsis is a pronominal empty category would relate the absence of ellipsis to the unavailability of functional heads within words, and other accounts would simply propose that syntactic structure cannot be present, or LF-copied, within words.

(517) *Juan es limpia-muchas-ventanas.
 Juan is clean-many-windows

b) As word-internal elements can be associates for some types of ellipsis, an alternative would be to propose that the problem is recoverability. Along the lines of Lobeck (1995), one could propose that empty elements need to be licensed by strong agreement. Agreement is famously peripheral to words, which means that within a word there cannot be internal agreement nodes, as (518) suggests (Lapointe 1981).

(518) *Juan y María son limpia-n-ventanas.
 Juan and María are clean-3pl-windows

One could argue, as has been sometimes suggested, that the objects that we call 'words' are in fact delimited by nodes containing strong agreement: the material contained under a node with agreement is mapped in phonology to a prosodic word, which captures the Atom Condition.

c) Within approaches to ellipsis that use deletion, as there is no empty category in the ellipsis site, the recoverability effect cannot be used. However, a close explanation can be provided. Imagine that the feature E is either restricted to nodes that contain agreement or, perhaps more empirically correct, has to be licensed by nodes that contain agreement. If that is the case, E could never be present in a nominal head within a word because there would not be an agreement node internal to the structure to license E. The problem of this approach, however, is that we have already seen (§3.4.1) that NP-ellipsis does not establish a strong correlation with agreement, so this analysis would have to resort to a (quite arbitrary) notion of abstract agreement that would need independent motivation.

Before we conclude this section, we want to briefly discuss cases like (519), which Bosque (1987) treats as cases of cataphoric ellipsis.

(519) pre- y post-electoral
 pre- and post-elections

The analysis that Bosque (1987) proposes is that the word used as base by the first prefix is elided, with the second base as the consequent:

(520) [pre- \emptyset] and [post-electoral]

This analysis competes with the coordination analysis where two prefixes are being coordinated with the same base.

(521) [pre- and post-]electoral

This is the analysis that Quirk et al. (1985) propose for the English equivalent. Bosque (1987) dismisses the coordination analysis because the prefixes would be treated as syntactic constituents, something that he rejects with little argumentation. The reasoning seems to be circular, and solely based on the fact that prefixes do not behave like heads: adjuncts are never heads but they are also syntactic constituents.

The ellipsis analysis in these cases would have to postulate a rare compulsorily cataphoric ellipsis relation –remember that the only attested type of ellipsis which is forcefully cataphoric is Right Node Raising (§3.2), which is almost uncontroversially reanalysed as movement or multidominance–. In contrast, treating that as a case of coordination would make it parallel to any other case of modifier coordinations that get a distributive reading:

- (522) a. elecciones [municipales y nacionales]
 elections [local and national]
 'national and local elections'
 b. elecciones [de ayer y de hoy]
 elections of yesterday and of today
 'elections from yesterday and from today'

Proposing an ellipsis analysis for these coordination cases is counterintuitive and, to the best of my knowledge, it has never been proposed. Instead, a standard coordination of two constituents that are not compulsory is proposed.

With this, we end the discussion about ellipsis within morphological structures and move to the conclusions.

11. Conclusions

Obviously, despite its length this article has only scratched the surface of the different empirical conditions of ellipsis in Spanish and its potential analyses. The field has witnessed in recent years a move from approaches that tried to substitute deletion for other operations to accounts that resurrect this old idea and extend the presence of PF conditions to other structures, like islands, where ellipsis seems to have a syntactic effect.

The main conclusion, then, is that the current theoretical universe treats ellipsis as an operation that, potentially, is distinct from three other situations:

a) Merge. Approaches that treat ellipsis as multidominance, so that the same item establishes more than one relation within the tree (without movement) and is therefore interpreted twice, are not predominant, and are almost completely restricted to Right Node Raising.

b) Merge with copies. Approaches based on movement, which treat silent elements as unpronounced copies, have been proposed in the literature, but as we have seen they are not predominant either. Some ellipsis cases, for instance those involving sluicing, are extremely difficult to derive solely on movement.

c) Empty categories. Although the analysis of silence as involving pro-forms that are inherently deprived of a phonological representation are quite extended, the existence of

connectivity effects inclines many researchers against this approach, which ultimately means that the ellipsis site lacks internal syntax.

If that is the case, then, we would be forced to accept that, beyond merge and agree, the computational system needs to admit some type of PF operation sensitive to syntactic constituency that is close to the traditional notion of 'deletion' or 'deformation' in the early transformational grammars.

In addition to this, the study of ellipsis now faces the problem of how to be more restrictive. The last twenty years have witnessed a development of different theoretical approaches, which have been applied to a broad spectrum of facts. However, this expansion has opened the doors to potentially unrestricted ellipsis cases. There are three main aspects of the analysis of ellipsis that require further restriction.

First of all, the licensing of ellipsis has become quite arbitrary. In some approaches in the 90s, licensing ellipsis involved empty categories which were subject to the same licensing conditions as other empty elements: government, and the presence of strong agreement, as in Lobeck (1995). From 2000 on, in contrast, the licensing nodes of ellipsis have become slightly more arbitrary, among other reasons because government has stopped being a relevant notion within Minimalism and empirically the association with agreement has been shown not to be perfect.

Take for instance the E-feature approach in Merchant (1999, 2001). The nodes that license ellipsis seem to be lexically chosen –that is, heads that license null complement anaphora or heads that license or contain E are defined by lexical fiat instead of proposing a generalisation that states the conditions that allow a head to delete its complement or license an empty element in its place–. For a node to license ellipsis, all it takes is that it has a checked E feature, but the conditions that license E or the consequences of having E as a feature are far from clear.

Secondly, the identity problem has also become less restrictive since the 90s. The extension of the vehicle change approach in Fiengo & May (1994) has made identity more and more an interpretative problem and less a strictly syntactic issue. This has as a result that theories resort more and more to paraphrase versions of the associate under the ellipsis site, including in some cases more radical situations where completely distinct syntactic structures can be involved in ellipsis provided that the ellipsis site is entailed by the associate at LF. This is particularly salient in Vicente (2008, 2009, 2018), which centrally adopts the claim that the ellipsis site may contain a cleft or copulative sentence instead of a structure that is strictly parallel to the associate. Without a restrictive theory of which changes and paraphrases are allowed, our understanding of ellipsis as an operation will be defective, as Abels (2018a) explains.

Third, the freedom that the two previous claims allow for ellipsis make deletion a tempting hypothesis to analyse an even broader set of structures, so that the notion of ellipsis is now being extended to cases that otherwise had not been thought as involving ellipsis. While the tendency has been to avoid ellipsis and propose movement and other independently necessary operations during the seventies, eighties and nineties, the current theoretical universe is expanding the domain of structures where ellipsis is proposed.

Beyond these more general points about the notion of ellipsis itself, there are several more empirically restricted aspects of ellipsis that seem to be particularly problematic:

a) The conditions that must be imposed on the remnants. Contrast does not seem to be necessary in all cases, at least in the narrow sense that the remnant may be lexically identical to part of the associate, and still escape ellipsis. This seems to argue against a straightforward analysis where remnants escape ellipsis through focus movement. If remnants do not move to a focus position (assuming, also, that there is no other site for movement that does not involve focalisation or topicalisation), the problem that emerges is that sometimes the elided segment

will not correspond to a unique syntactic constituent, which would complicate the analysis of ellipsis as a feature, the result of movement or the presence of an empty category.

b) The timing problem. In a representational universe, as was the case with Government and Binding, deletion would be an operation that applies on the surface. In a derivational system like the one we currently have, in contrast, deletion triggered by some feature should happen as soon as possible once the feature has been introduced in the derivation. This brings up the timing issue: some constituents could be unable to escape the ellipsis site because deletion applies before they had a chance to move to some higher location. This, in fact, may mean that some of the cases of silent structure that have been argued not to involve deletion because they disallow extraction (eg., Null complement anaphora) could be reduced to cases of deletion that happen before the merge site of extracted elements could have been built.

Ellipsis is currently one of the most active research topics in linguistics, and this article has done little more than establishing the current facts and analytical options. While there are many open questions that cannot be answered in this type of article, I hope that at least I have been able to offer a reasonably complete overview of where we stand at this point of our research enterprise.

Antonio Fábregas
Department of Language and Literature
Faculty of Humanities
Norwegian University of Science and Technology
NTNU
Trondheim, Norway
antonio.fabregas@ntnu.no

References

- Abe, Jun (2015). *The in-situ approach to sluicing*. Amsterdam and Philadelphia: John Benjamins. <https://doi.org/10.1075/la.222>
- Abels, Klaus (2012). *Phases: An essay on cyclicity in syntax*. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110284225>
- Abels, Klaus (2018a). Movement and islands. In Jeroen van Craenenbroeck and Tanja Temmerman (eds), *The Oxford Handbook of Ellipsis*. New York: Oxford University Press, pp. 289–424. <https://doi.org/10.1093/oxfordhb/9780198712398.013.17>
- Abels, Klaus (2018b). ‘On sluicing with apparent pied-piping’, *Natural Language and Linguistic Theory* 37 (4): 1205–1271. <https://doi.org/10.1007/s11049-018-9432-1>
- Abels, Klaus (2022). *On vehicle change and ellipsis identity*. Ms., University College London.
- Aelbrecht, Lobke (2010). *The syntactic licensing of ellipsis*. Amsterdam: John Benjamins. <https://doi.org/10.1075/la.149>
- Aelbrecht, Lobke (2016). ‘What ellipsis can do for phases and what it can’t, but not how’, *The Linguistic Review* 33 (4): 453–482.
- Aelbrecht, Lobke and William Harwood (2015). ‘To be or not to be elided: VP ellipsis revisited,’ *Lingua* 153: 66–97. <https://doi.org/10.1016/j.lingua.2014.10.006>
- Agüero-Bautista, Calixto (2007). Diagnosing cyclicity in sluicing, *Linguistic Inquiry* 38: 413–44. <https://doi.org/10.1162/ling.2007.38.3.413>
- Arregi, Karlos (2010). ‘Ellipsis in split questions’, *Natural language and linguistic theory* 28 (3): 539–592. <https://doi.org/10.1007/s11049-010-9097-x>
- Barker, Chris (2013). Scopability and sluicing, *Linguistics and Philosophy* 36: 187–223. <https://doi.org/10.1007/s10988-013-9137-1>

- Barrenechea, Ana M. (1974). A propósito de la elipsis en la coordinación, in *Studia Hispanica in honorem R. Lapesa*, II, 105-121.
- Barros, Matthew (2014) *Sluicing and identity in ellipsis*. PhD thesis, Rutgers University, New Brunswick, NJ.
- Barros, Matthew (2014b). Sluicing and identity in ellipsis. PhD thesis, Rutgers University, New Brunswick, NJ.
- Barros, Matthew and Hadas Kotek (2019). ‘Ellipsis licensing and redundancy reduction: A focus-based approach’, *Glossa* 4 (1): 1–36. <https://doi.org/10.5334/gjgl.811>
- Barros, Matthew and Luis Vicente (2011). ‘Right node raising requires both ellipsis and multidomination’, *University of Pennsylvania Working Papers of Linguistics* 17(1), Article 2.
- Barros, Matthew and Luis Vicente (2011). Right node raising requires both ellipsis and multidomination, *University of Pennsylvania Working Papers in Linguistics* 17(1): 1–9.
- Barros, Matthew, Patrick Elliott, and Gary Thoms (2014). *There is no island repair*. Ms., Rutgers University, University College London, and University of Edinburgh
- Barros, Matthew, Patrick Elliott, and Gary Thoms (2015). ‘More variation in island repair: The clausal/non-clausal island distinction’, *Proceedings of the 49th annual meeting of the Chicago Linguistic Society*. Chicago: Chicago Linguistic Society, 331–346.
- Bošković, Željko (2014). ‘Now I’m a phase, now I’m not a phase: on the variability of phases with extraction and ellipsis. *Linguistic Inquiry* 45, pp. 27-89. https://doi.org/10.1162/LING_a_00148
- Bosque, Ignacio (1993). Este es un ejemplo de predicación catafórica. *Cuadernos de lingüística del Instituto Universitario Ortega y Gasset* 1, pp. 27-57.
- Bosque, Ignacio (1984). Negación y ellipsis. *Estudios de Lingüística* 2, pp. 171–99. <https://doi.org/10.14198/ELUA1984.2.07>
- Bouton, L. F. (1970). Antecedent contained pro-forms, in *Papers from the Sixth Regional Meeting of the Chicago Linguistic Society*. Chicago: Chicago Linguistic Society, 154–67.
- Bresnan, Joan (1973). Syntax of the comparative clause construction in English, *Linguistic Inquiry* 4(3): 275–343.
- Brucart, José María (1984). Sobre el carácter anafórico del fenómeno del vaciado. *Estudios gramaticales* 1, pp. 27-76.
- Brucart, José María (1987). *La elisión sintáctica en español*. Bellaterra: Publicacions de la Universitat Autònoma de Barcelona.
- Brucart, José María (1999). La ellipsis, in Ignacio Bosque and Violeta Demonte (eds), *Gramática descriptiva de la lengua española*. Madrid: Espasa Calpe, 1787–866.
- Casielles, Eugenia (2006). Big questions, small answers, in Ljiljana Progovac, Kate Paesani, Eugenia Casielles, and Ellen Barton (eds), *The syntax of nonsententials: Multidisciplinary perspectives*. Amsterdam and Philadelphia: John Benjamins, 117–45. <https://doi.org/10.1075/la.93.07cas>
- Chomsky, Noam (1971). Deep structure, surface structure and semantic interpretation, in Danny Steinberg and Leon Jacobovits (eds), *Semantics*. London: Cambridge University Press, 183–216.
- Chomsky, Noam (1972). Some empirical issues in the theory of transformational grammar, in Stanley Peters (ed.), *The goals of linguistic theory*. Englewood Cliffs, NJ: Prentice-Hall, 63–130.
- Chomsky, Noam (1977a). Conditions on transformations, in *Essays on form and interpretation*. New York: Elsevier North-Holland, 81–162.
- Chomsky, Noam (1981). *Lectures on government and binding*. Dordrecht: Foris Publications.

- Chomsky, Noam (1995b). *The minimalist program*. Cambridge, MA: MIT Press.
- Chomsky, Noam (2001). ‘Derivation by phase’, in Michael Kenstowicz (ed.), *Ken Hale: A life in language*. Cambridge, MA: MIT Press, 1–51.
- Chomsky, Noam. (2004). ‘Beyond explanatory adequacy’, in Adriana Belletti (ed.), *Structures and beyond: The cartography of syntactic structures*, vol. 2. Oxford: Oxford University Press, 104–131.
- Chung, Sandra (2006). Sluicing and the lexicon: The point of no return, in Rebecca T. Cover and Yuni Kim (eds), *Proceedings of the annual meeting of the Berkeley Linguistics Society*, vol. 31. Berkeley, CA: Berkeley Linguistics Society, 73–91. <https://doi.org/10.3765/bls.v31i1.896>
- Chung, Sandra, William A. Ladusaw, and James McCloskey (1995). Sluicing and Logical Form, *Natural Language Semantics* 3(3): 239–82. <https://doi.org/10.1007/BF01248819>
- Chung, Sandra, William Ladusaw, and James McCloskey (2011). ‘Sluicing(:) Between Structure and Inference’, in Gutiérrez-Bravo, Rodrigo, Line Mikkelsen and Eric Potsdam (eds), *Representing Language: Essays in Honor of Judith Aissen*. California Digital Library eScholarship Repository. Linguistic Research Center, University of California, Santa Cruz, 31–50.
- Cinque, Guglielmo (2004). ‘Restructuring’ and functional structure, in Adriana Belletti (ed.), *Structures and beyond: The cartography of syntactic structures*, vol. 3. Oxford: Oxford University Press, 132–91.
- Craenenbroeck, Jeroen van and Marcel den Dikken (2006). ‘Ellipsis and EPP repair’, *Linguistic Inquiry* 37 (4): 653–664. <https://doi.org/10.1162/ling.2006.37.4.653>
- Craenenbroeck, Jeroen van and Tanja Temmerman (2017). ‘How (not) to elide negation’, *Syntax* 20:1, 41–76. <https://doi.org/10.1111/synt.12131>
- Culicover, Peter and Ray Jackendoff (2005). *Simpler Syntax*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199271092.001.0001>
- DeClercq, Karen (2009). Fonologische deletie in ja-neevoorzinnen. In *Handelingen van de Koninklijke Zuid-Nederlandse Maatschappij voor Taal- en Letterkunde en Geschiedenis* LXII.
- Depiante, Marcela & Luis Vicente (2012). El movimiento y la morfología del verbo. In José María Brucart & Ángel J. Gallego Bartolomé (eds.), *El movimiento de constituyentes*. Madrid: Visor.
- Depiante, Marcela (2001). On null complement anaphora in Spanish and Italian, *Probus* 13(2): 193–221. <https://doi.org/10.1515/prbs.2001.003>
- Depiante, Marcela and Pascual Masullo (2001). *Género y número en la elipsis nominal: Consecuencias para la hipótesis lexicalista*. Talk given at the I Encuentro de gramática Generativa, National University of Comahue.
- Eguren, Luis (2010). Contrastive focus and nominal ellipsis in Spanish, *Lingua* 120(2): 435–57. <https://doi.org/10.1016/j.lingua.2009.05.004>
- Erteschik-Shir, Nomi (1973). *On the nature of island constraints*. PhD thesis, MIT.
- Erteschik, Naomi (1973). *On the nature of island constraints*. PhD dissertation, MIT.
- Fábregas, Antonio (2019). Periphrases in Spanish: properties, diagnostics and research questions. *Borealis* 8, pp. 1-82. <https://doi.org/10.7557/1.8.2.4944>
- Fernández-Sánchez, Javier (2023). Spanish modal ellipsis is not null complement anaphora. *Linguistics* 61 (4). <https://doi.org/10.1515/ling-2021-0077>
- Fiengo, Robert & Howard Lasnik (1972). Non-recoverable deletion in syntax. *Linguistic Inquiry* 3(4), p. 528.
- Fiengo, Robert and Robert May (1994). *Indices and identity*. Cambridge, MA: MIT Press.

- Fillmore, Charles (1986). Pragmatically controlled zero anaphora, in *Proceedings of the Twelfth Annual Meeting of the Berkeley Linguistics Society*. Berkeley: Berkeley Linguistics Society, 95–107. <https://doi.org/10.3765/bls.v12i0.1866>
- Fortin, Catherine (2007b). Indonesian sluicing and verb phrase ellipsis: Description and explanation in the Minimalist framework. PhD thesis, University of Michigan.
- Fortin, Catherine (2011). We need LF-copying: A few good reasons why, in Mary Byram Washburn, Sarah Ouwayda, Chuoying Ouyang, Bin Yin, Canan Ipek, Lisa Marston, and Aaron Walker (eds), *Proceedings of the 28th West Coast Conference on Formal Linguistics*. Somerville, MA: Cascadilla Press, 87–95.
- Fox, Danny (2000). *Economy and semantic interpretation*. Cambridge, MA: MIT Press.
- Fox, Danny (2002). Antecedent-contained deletion and the copy theory of movement, *Linguistic Inquiry* 33(1): 63–96. <https://doi.org/10.1162/002438902317382189>
- García Fernández, Luis, et al. (2006). *Diccionario de perífrasis verbales*. Madrid: Gredos.
- Gengel, Kirsten (2007). Focus and ellipsis: A generative analysis of pseudo-gapping and other elliptical structures. PhD thesis, University of Stuttgart.
- Gengel, Kirsten (2008). ‘Phases and ellipsis’, *Linguistic analysis* 35: 21–42.
- Gengel, Kirsten (2013). *Pseudo-gapping and ellipsis*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199665303.001.0001>
- Giannakidou, Anastasia and Jason Merchant (1998). Reverse sluicing in English and Greek, *The Linguistic Review* 15: 233–56. <https://doi.org/10.1515/tlir.1998.15.2-3.233>
- Giannakidou, Anastasia and Melita Stavrou (1999). Nominalization and ellipsis in the Greek DP, *The Linguistic Review* 16: 295– 331. <https://doi.org/10.1515/tlir.1999.16.4.295>
- Goldberg, Adele (2005). *Constructions at work. The nature of generalisations in language*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199268511.001.0001>
- González-Vilbazo, Kay and Sergio E. Ramos (2014). *A morphosyntactic condition on sluicing: Evidence from Spanish/German code-switching*. Ms., University of Illinois at Chicago.
- González-Vilbazo, Kay and Sergio Ramos (2014). *A morphosyntactic condition on sluicing: Evidence from Spanish/German code-switching*. Ms. University of Illinois at Chicago.
- Gribanova, Vera and Emily Manetta (2016). Ellipsis in wh-in-situ languages: Deriving apparent sluicing in Hindi-Urdu and Uzbek, *Linguistic Inquiry* 47(4): 631–68. https://doi.org/10.1162/LING_a_00225
- Grimshaw, Jane (1979). Complement selection and the lexicon, *Linguistic Inquiry* 10: 279–326.
- Güneş, Güliz and Anikó Lipták (2021). ‘Nuclear prominence in ellipsis: evidence from aggressively non-D-linked phrases’, *Journal of Linguistics* 57 (1): 83–121. <https://doi.org/10.1017/S0022226720000134>
- Gutiérrez Ordóñez, Salvador (1992). Estructuras predicativas de verbo ausente. In E. Alarcos et al. (eds.), *Gramma-temas I*. León: Universidad de León, pp. 117-143.
- Hankamer, Jorge (1979). *Deletion in coordinate structures*. New York: Garland Publishing.
- Hankamer, Jorge (1979). *Deletion in coordinate structures*. New York: Garland Publishing.
- Hankamer, Jorge and Ivan A. Sag (1976), ‘Deep and surface anaphora’, *Linguistic Inquiry* 7: 391–426.
- Hardt, Daniel (1993). Verb phrase ellipsis: Form, meaning and processing. PhD thesis, University of Pennsylvania.
- Hardt, Daniel (1993). *Verb phrase ellipsis: Form, meaning and processing*. PhD thesis, University of Pennsylvania.
- Hartmann, Katharina (1998). Right Node Raising and gapping. PhD thesis, Goethe-Universität zu Frankfurt am Main, Frankfurt. <https://doi.org/10.1075/z.106>

- Hartmann, Katharina (2000). ‘Right Node Raising and Gapping: Interface Conditions on Prosodic Deletion’, Amsterdam/Philadelphia: John Benjamins.
- Haynie, Hannah J. (2010). *What is Null Complement Anaphora? A syntactic account can explain*. Ms. University of California at Berkeley.
- Heim, Irene (1998). Anaphora and semantic interpretation: A reinterpretation of Reinhart’s approach, in Orin Percus and Uli Sauerland (eds), *The interpretive tract*. Cambridge, MA: MIT Working Papers in Linguistics, 205–46.
- Hernández Terés, José María (1984). *La elipsis en la teoría gramatical*. Murcia: Universidad de Murcia.
- Hernández, Ana Carrera (2007). Gapping as a syntactic dependency, *Lingua* 117(12): 2106–33. <https://doi.org/10.1016/j.lingua.2007.01.004>
- Holmberg Anders (2015). *The syntax of yes and no*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198701859.001.0001>
- Jackendoff, Ray (1977). *X’ syntax*. Cambridge, MA: MIT Press.
- Jayaseelan, Karattuparambil A. (1990). ‘Incomplete VP deletion and Gapping’, *Linguistic Analysis* 20: 64–81.
- Jayaseelan, Karattuparambil A. (1990). Incomplete VP deletion and gapping, *Linguistic Analysis* 20(1–2): 64–81.
- Jiménez Juliá, Tomás (1995). *La coordinación en español: aspectos teóricos y descriptivos*. Santiago de Compostela: Universidad de Santiago.
- Johnson, Kyle (2000). Few dogs eat Whiskers or cats Alpo, in Kiyomi Kusumoto and Elisabeth Villalta (eds), *University of Massachusetts Occasional Papers 23*. Amherst, MA: UMOP, 47–60.
- Johnson, Kyle (2001a). Sluicing and constraints on quantifier scope, *GLoT International* 5(6): 217–21.
- Johnson, Kyle (2001b). What VP ellipsis can do, and what it can’t, but not why, in Mark Baltin and Chris Collins (eds), *The handbook of contemporary syntactic theory*. Oxford: Blackwell Publishers, 439–79. <https://doi.org/10.1002/9780470756416.ch14>
- Johnson, Kyle (2008). Introduction, in Kyle Johnson (ed.), *Topics in ellipsis*. Cambridge: Cambridge University Press, 1–14. <https://doi.org/10.1017/CBO9780511487033.001>
- Johnson, Kyle (2013). ‘Licensing Ellipsis’, *Studies in Chinese Linguistics*, 34 (2): 71–98.
- Johnson, Kyle (2018). ‘Gapping and stripping’, in Jeroen van Craenenbroeck and Tanja Temmerman (eds), *The Oxford Handbook of Ellipsis*. Oxford: Oxford University Press, 562–604. <https://doi.org/10.1093/oxfordhb/9780198712398.013.24>
- Johnson, Meredith (2015a). ‘Ellipsis is derivational: Evidence from Hocak VPE’, in Helena Aparicio, Gallagher Flinn, Kathryn Franich, Joanna Pietraszko, Tamara Vardomszkaya (eds), *Proceedings of the 49th annual meeting of the Chicago Linguistic Society*. Chicago: Chicago Linguistics Society, 197–208.
- Johnson, Meredith (2015b). *Elliptical phenomena in Hocak*. PhD thesis, University of Wisconsin-Madison.
- Keenan, Edward (1971). Names, quantifiers, and a solution to the sloppy identity problem, *Papers in Linguistics* 4(2): 211–32. <https://doi.org/10.1080/08351817109370257>
- Kennedy, Christopher (1994). *Argument contained ellipsis*. Linguistics Research Center report LKC-94-03, University of California, Santa Cruz.
- Kester, Ellen-Petra (1996). Adjectival inflection and the licensing of empty categories in DP, *Journal of Linguistics* 32: 57–78. <https://doi.org/10.1017/S0022226700000761>
- Kizu, Mika (1997a). A note on sluicing in wh-in-situ languages, *MIT Working Papers in Linguistics* 36: 143–60.
- Kornfeld, Laura and Andrés Saab (2004). ‘Nominal ellipsis and morphological structure in Spanish’, in Bok-Bennema, Reineke, Bart Hollebrandse, Brigitte Kampers-Manhe and

- Petra Sleeman (eds), *Romance Languages and Linguistic Theory 2002*. Amsterdam: John Benjamins, 183–198. <https://doi.org/10.1075/cilt.256.11kor>
- Kornfeld, Laura and Andrés Saab (2004). Nominal ellipsis and morphological structure in Spanish, in Reineke Bok-Benneman, Bart Hollebrandse, Brigitte Kampers-Manhe, and Petra Sleeman (eds), *Romance languages and linguistic theory 2002*.
- Kovacci, Ofelia (1975). Función y contexto: acerca de la elipsis. In *Homenaje al Instituto de Filología ny Literatura Hispánicas Amado Alonso en su cincuentenario*. Buenos Aires: Comisión del Homenaje, pp. 130-145.
- Kuno, Susumu (1976). Gapping: A functional analysis, *Linguistic Inquiry* 7(2): 300–18.
- Laka, Itziar (1990). Negation in syntax: On the nature of functional categories and their projections. PhD thesis, Massachusetts Institute of Technology.
- Lami, Irene & Joost van der Weijer (2022). Compound-internal anaphora: evidence from acceptability judgements on Italian argumental compounds. *Morphology* 32, pp. 359-388. <https://doi.org/10.1007/s11525-022-09398-w>
- Landau, Idan (2010). The explicit syntax of implicit arguments. *Linguistic Inquiry* 41, pp. 357–388. https://doi.org/10.1162/LING_a_00001
- Landau, Idan (2020a). ‘A Scope Argument against T-to-C Movement in Sluicing’, *Syntax* 23 (4): 375–393. <https://doi.org/10.1111/synt.12204>
- Landau, Idan (2020b). ‘Constraining Head-Stranding ellipsis’, *Linguistic Inquiry*. 51 (2): 281–318. https://doi.org/10.1162/ling_a_00347
- Landau, Idan (2020c). ‘On the non-existence of V-stranding VP ellipsis’, *Linguistic Inquiry*. 51 (2): 341–365. https://doi.org/10.1162/ling_a_00346
- Lapointe, Stephen (1981). *A theory of grammatical agreement*. PhD thesis, University of Massachusetts-Amherst.
- Lappin, Shalom (1999). An HPSG account of antecedent-contained ellipsis, in Shalom Lappin and Elabbas Benmamoun (eds), *Fragments: Studies in ellipsis and gapping*. Oxford: Oxford University Press, 68–97.
- Larson, Richard & Robert May (1990). Antecedent containment or vacuous movement: Reply to Baltin. *Linguistic Inquiry* 21:103-122.
- Lasnik, Howard (1999a). ‘On feature strength: Three Minimalist approaches to overt movement’, *Linguistic Inquiry* 30: 197–217. <https://doi.org/10.1162/002438999554039>
- Lasnik, Howard (1999a). A note on pseudo-gapping, in Howard Lasnik (ed.), *Minimalist analysis*. Oxford: Blackwell Publishers, 151–74.
- Lasnik, Howard (1999b). ‘Verbal morphology: Syntactic Structures meets the Minimalist Program’, in Howard Lasnik and Mamoru Saito (eds), *Minimalist Analysis*. Malden MA: Blackwell, 97–199.
- Lasnik, Howard (1999c). ‘Pseudo-gapping puzzles’, in Shalom Lappin and Elabbas Benmamoun (eds), *Fragments: Studies in ellipsis and gapping*. Oxford: Oxford University Press, 141–74.
- Lasnik, Howard (2001). ‘When can you save a structure by destroying it?’, in Minjoo Kim and Uri Strauss (eds), *Proceedings of the North East Linguistic Society* 31, 301–320.
- Lasnik, Howard and Mamoru Saito (1991). On the subject of infinitives, in Lise M. Dobrin, Lynn Nichols, and Rosa M. Rodriguez (eds), *Proceedings of the 27th annual meeting of the Chicago Linguistic Society*. Chicago: Chicago Linguistic Society, 324–43.
- Lebeaux, David (2009). *Where does the Binding Theory apply?* Cambridge, MA: MIT Press. <https://doi.org/10.7551/mitpress/9780262012904.001.0001>
- Lechner, Winfried (1998). Comparative deletion. PhD thesis, University of Massachusetts at Amherst.
- Lechner, Winfried (2004). *Ellipsis in comparatives*. Berlin and New York: Mouton de Gruyter. <https://doi.org/10.1515/9783110197402>

- Leonetti, Manuel (1999). El artículo, in Ignacio Bosque and Violeta Demonte (eds), *Gramática descriptiva de la lengua española*. Madrid: Espasa Calpe, 787–890.
- Lieber, Rochelle (1992). *Deconstructing morphology*. Chicago: University of Chicago Press.
- Lipták, Annikó & Guliz Günes (2022) (eds.). *The derivational timing of ellipsis*. Oxford: Oxford University Press. <https://doi.org/10.1093/oso/9780198849490.003.0001>
- Llombart-Huesca, Amàlia (2002). Anaphoric *one* and NP-ellipsis, *Studia Linguistica* 56(1): 59–89. <https://doi.org/10.1111/1467-9582.00087>
- Lobeck, Anne (1987). Syntactic constraints on ellipsis. PhD thesis, University of Washington, Seattle.
- Lobeck, Anne (1992). Licensing and identification of ellipited categories in English, in Steve Berman and Arild Hestvik (eds), *Proceedings of the Stuttgart Ellipsis Workshop*, Stuttgart.
- Lobeck, Anne (1995). *Ellipsis: Functional heads, licensing and identification*. Oxford University Press: Oxford.
- Lobeck, Anne (1995). *Ellipsis: Functional heads, licensing, and identification*. New York: Oxford University Press.
- López, Luis (2000). ‘Ellipsis and discourse linking’, *Lingua* 110 (3): 183–213. [https://doi.org/10.1016/S0024-3841\(99\)00036-4](https://doi.org/10.1016/S0024-3841(99)00036-4)
- McCawley, James D. (1982). Parentheticals and discontinuous constituent structure, *Linguistic Inquiry* 13(1): 91–106.
- McCawley, James D. (1993). Gapping with shared operators. *Proceedings of the 19th meeting of the Berkeley Linguistics Society*, 245–253. <https://doi.org/10.3765/bls.v19i1.1507>
- McCloskey, James (1991). Clause structure, ellipsis, and proper government in Irish, *Lingua* 85: 259–302. [https://doi.org/10.1016/0024-3841\(91\)90023-X](https://doi.org/10.1016/0024-3841(91)90023-X)
- Merchant, Jason (1998). ‘Pseudosluicing’: Elliptical clefts in Japanese and English, *ZAS Working Papers in Linguistics* 10: 88–112. <https://doi.org/10.1093/acprof:oso/9780199602490.003.0026>
- Merchant, Jason (2001). *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.
- Merchant, Jason (2004). ‘Fragments and ellipsis’, *Linguistics and Philosophy* 27: 661–738.
- Merchant, Jason (2013a). ‘Diagnosing ellipsis’, in Lisa Cheng and Norbert Corver (eds), *Diagnosing ellipsis*. Oxford: Oxford University Press, 537–542. <https://doi.org/10.1007/s10988-005-7378-3>
- Merchant, Jason (2004). Fragments and ellipsis, *Linguistics and Philosophy* 27(6): 661–738.
- Merchant, Jason (2013b). ‘Voice and ellipsis’, *Linguistic Inquiry* 44: 77–108. https://doi.org/10.1162/LING_a_00120
- Merchant, Jason (2015). ‘On ineffable predicates: bilingual Greek-English code switching under ellipsis’, *Lingua* 166: 199–213. <https://doi.org/10.1016/j.lingua.2015.03.010>
- Merchant, Jason (2018a). ‘Ellipsis: A survey of analytical approaches’, in Jeroen van Craenenbroeck and Tanja Temmerman (eds), *The Oxford Handbook of Ellipsis*. Oxford: Oxford University Press, 19–45. <https://doi.org/10.1093/oxfordhb/9780198712398.013.2>
- Merchant, Jason (2018b). ‘Verb-stranding predicate ellipsis in Greek, implicit arguments and ellipsis-internal focus’, in Jason Merchant, Line Mikkelsen, Deniz Rudin, and Kelsey Sasaki (eds), *A reasonable way to proceed: Essays in honor of Jim McCloskey*. University of California eScholarship, 229–269.
- Moltmann, Friederike (1992). Coordination and comparatives. PhD thesis, MIT
- Moreno Quibén, Norberto & Pérez Jiménez, Isabel (2012). On the syntax of exceptions. *Lingua* 122 (6), pp. 582-607. <https://doi.org/10.1016/j.lingua.2012.01.001>

- Morgan, Jerry (1973). Sentence fragments and the notion ‘sentence’, in Brai Kachru, Robert Lees, Yakov Malkiel, Angelina Pietrangeli, and Sol Saporta (eds), *Issues in linguistics: Papers in honor of Henry and Renée Kahan*. Urbana: University of Illinois Press, 719–51.
- Moro, Andrea (1998). *Dynamic antisymmetry*. Cambridge (Mass.): MIT Press.
- Napoli, Donna J. (1982). ‘Initial material deletion in English’, *Glossa* 16 (1): 85–111.
- Napoli, Donna Jo (1983b). Missing complement sentences in English: A base analysis of Null Complement Anaphora, *Linguistic Analysis* 12: 1–28.
- Nunes, Jairo (2011). ‘Sideward Movement’. *Linguistic Inquiry* 31, pp. 303–344. <https://doi.org/10.1162/00243890152001780>
- Oku, Satoshi (1998). A theory of selection and reconstruction in the Minimalist perspective. PhD thesis, University of Connecticut.
- Ott, Dennis (2014). An ellipsis approach to contrastive left-dislocation, *Linguistic Inquiry* 45: 269–303. https://doi.org/10.1162/LING_a_00155
- Palacios, A. (2000). El sistema pronominal del español Paraguayo: un caso de contacto de lenguas. In Calvo Pérez (ed.), *Teoría y práctica del contacto: el español de América en el candelero*. Madrid / Frankfurt: Iberoamericana / Vervuert, pp. 122–143. <https://doi.org/10.31819/9783865278883-007>
- Panagiotidis, Phoevos (2002). *Pronouns, clitics and empty nouns*. Amsterdam and Philadelphia: John Benjamins. <https://doi.org/10.1075/la.46>
- Partee, Barbara (1975). Deletion and variable binding. In Edward Keenan (ed.), *Formal Semantics of Natural Languages*. Cambridge: Cambridge University Press, pp. 16–34. <https://doi.org/10.1017/CBO9780511897696.004>
- Pollmann, Thijs (1975). Een regel die subject en copula deleert? *Spektator* 5: 282–92.
- Pullum, Geoffrey K. (1975). People deletion in English, *Working Papers in Linguistics* 14: 95–101.
- Pustejovsky, James (1995). *The generative lexicon*. Cambridge (Mass.): MIT Press.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik (1985). *A comprehensive grammar of the English language*. London: Longman.
- RAE & ASALE (2009). *Nueva gramática de la lengua española*. Madrid: Espasa.
- Reinhart, Tanya (1991). Elliptic conjunctions—non-quantificational LF, in Asa Kasher (ed.), *The Chomskyan Turn*. Cambridge, MA: Blackwell Publishers, 360–84.
- Rodríguez Díez, Bonifacio (1983). Sobre las lagunas del enunciado: elipsis y catálisis. *Contextos* 1, pp. 93–127.
- Rooth, Mats (1992a). Ellipsis redundancy and reduction redundancy, in Steve Berman and Arild Hestvik (eds), *Proceedings of the Stuttgart Ellipsis Workshop*, Stuttgart. Heidelberg: IBM.
- Rosen, Carol (1976). Guess what about?, in Alan Ford, John Reighard and Rajendra Singh (eds), *NELS 6: Proceedings of the sixth annual meeting of the North East Linguistic Society*. Amherst, MA: GLSA, 205–11.
- Ross, John Robert (1967). Constraints on variables in syntax. PhD thesis, Massachusetts Institute of Technology.
- Ross, John Robert (1967). *Constraints on variables in syntax*. PhD thesis, Massachusetts Institute of Technology.
- Ross, John Robert (1969). ‘Guess who?’, in Robert Binnick, Alice Davison, Georgia Green and Jerry Morgan (eds), *Proceedings of the Fifth Regional Meeting of the Chicago Linguistic Society*. Chicago: Chicago linguistics society, 252–286.
- Ross, John Robert (1969b). Guess who?, in Robert I. Binnick, Alice Davison, Georgia M. Green, and Jerry L. Morgan (eds), *Proceedings of the 5th annual meeting of the Chicago Linguistic Society*. Chicago: Chicago Linguistic Society, 252–86.

- Rouveret, Alain (2012). ‘VP ellipsis, phases and the syntax of morphology’, *Natural Language and Linguistic Theory* 30: 897–963. <https://doi.org/10.1007/s11049-011-9151-3>
- Saab, Andrés (2008). *Hacia una teoría de la identidad parcial en la elipsis*. PhD thesis, University of Buenos Aires.
- Saab, Andrés (2008). *Hacia una teoría de la identidad parcial en la elipsis*. PhD thesis, Universidad de Buenos Aires.
- Saab, Andrés (2010a). (Im)possible deletion in the Spanish DP, *IBERIA: An International Journal of Theoretical Linguistics* 2(2): 45– 83.
- Saab, Andrés (2010b). Silent interactions. Spanish TP-ellipsis and the theory of island repair, *Probus* 22: 73–116. <https://doi.org/10.1515/prbs.2010.003>
- Saab, Andrés (2015). A note on *someone (else)*: An island repair solution and its competitors, *Linguistic Inquiry* 46(3): 553–68. https://doi.org/10.1162/LING_a_00192
- Saab, Andrés (2018). ‘Nominal ellipsis’, in Jeroen van Craenenbroeck and Tanja Temmerman (eds) *The Oxford Handbook of Ellipsis*. Oxford: Oxford University Press, 526–561. <https://doi.org/10.1093/oxfordhb/9780198712398.013.26>
- Saab, Andrés and Anikó Lipták (2016). Movement and deletion after syntax: Ellipsis by inflection reconsidered, *Studia Linguistica* 70(1): 66–108. <https://doi.org/10.1111/stul.12039>
- Saab, Andrés and Pablo Zdrojewski (2012). ‘Anti-repair effects under ellipsis’, in Irene Franco, Sara Lusini and Andrés Saab (eds), *Romance Languages and Linguistic Theory 2010: Selected papers from 'Going Romance' Leiden 2010*. Amsterdam: John Benjamins, 177–202. <https://doi.org/10.1075/rllt.4.09saa>
- Saab, Andrés. and Anikó Lipták (2016). ‘Movement and deletion after syntax: Licensing by inflection reconsidered’, *Studia Linguistica* 70 (1): 66–108. <https://doi.org/10.1111/stul.12039>
- Saeboe, Kjell Johan (1993). *Anaphoric presuppositions and zero anaphora*. Ms. University of Oslo. <https://doi.org/10.1007/BF00635837>
- Saeboe, Kjell Johan (1996). Anaphoric presuppositions and zero anaphora, *Linguistics and Philosophy* 19(1): 187–209.
- Sag, Ivan A. & Jorge Hankamer (1984). Toward a theory of anaphoric processing. *Linguistic and philosophy* 7(3), pp. 325–345. <https://doi.org/10.1007/BF00627709>
- Sag, Ivan A. (1976a). Deletion and logical form. PhD thesis, MIT.
- Sailor, Craig (2014). *The Variables of VP Ellipsis*. Doctoral dissertation, UCLA.
- Sailor, Craig (2014). The variables of VP-ellipsis. PhD thesis, UCLA.
- Sailor, Craig (2018). ‘The Typology of Head Movement and Ellipsis: a reply to Lipták & Saab’, *Natural Language & Linguistic Theory* 36: 851–875. <https://doi.org/10.1007/s11049-017-9391-y>
- Sailor, Craig and Gary Thoms (2014). ‘On the non-existence of non-constituent coordination and nonconstituent ellipsis’, in Robert E. Sandana-LaBarge (ed.), *Proceedings of the 31st West Coast Conference on Formal Linguistics*. Somerville, MA: Cascadia Proceedings Project, 361–70.
- Schwarzer, Luise (2021). *Determiner sharing in German — An argument for movement-based approaches to ellipsis*. PhD thesis, University of Leipzig.
- Shimoyama, Junko (1995). *On ‘sluicing’ in Japanese*. Ms. University of Massachusetts at Amherst.
- Shopen, Timothy (1972). A generative theory of ellipsis: a consideration of the linguistic use of silence. PhD thesis, UCLA.
- Shopen, Timothy (1973). Ellipsis as grammatical indeterminacy, *Foundations of Language* 10: 65–77.

- Siegel, Muffy E. A. (1987). Compositionality, case, and the scope of auxiliaries, *Linguistics and Philosophy* 10(1): 53–76. <https://doi.org/10.1007/BF00603392>
- Suñer, Margarita and María Yépez (1988). Null definite objects in Quiteño, *Linguistic Inquiry* 19(3): 511–19.
- Tancredi, Chris (1992). *Deletion, deaccenting and presupposition*. PhD thesis, MIT.
- Ticio, Emma (2003). On the structure of DPs. PhD thesis, University of Connecticut at Storrs.
- Uriagereka, Juan (1999). Multiple Spell-Out, in Samuel D. Epstein and Norbert Hornstein (eds.), *Working Minimalism*. Cambridge (Mass.): MIT Press, 251–281.
- van Craenenbroeck, Jeroen (2010). *The syntax of ellipsis: Evidence from Dutch dialects*. New York: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195375640.001.0001>
- van Craenenbroeck, Jeroen (2017). VP-ellipsis, in Martin Everaert and Henk van Riemsdijk (eds), *The Wiley Blackwell companion to syntax*, 2nd edition. Hoboken: Wiley-Blackwell, 1–35. <https://doi.org/10.1002/9781118358733.wbsyncom049>
- Vicente, Luis (2008). *Syntactic isomorphism and non-isomorphism under ellipsis*. Ms. UCSC.
- Vicente, Luis (2010a). A note on the movement analysis of gapping, *Linguistic Inquiry* 41(3): 509–17. https://doi.org/10.1162/LING_a_00008
- Vicente, Luis (2010b). On the syntax of adversative coordination, *Natural Language and Linguistic Theory* 28(2): 381–415. <https://doi.org/10.1007/s11049-010-9094-0>
- Vicente, Luis (2014a). *Morphological case mismatches under sluicing*. Ms. University of Potsdam. <https://doi.org/10.7358/snip-2015-029-vice>
- Vicente, Luis (2018). ‘Sluicing and Its subtypes’, in Jeroen van Craenenbroeck and Tanja Temmerman (eds) *The Oxford Handbook of Ellipsis*. Oxford: Oxford University Press, 479– 503. <https://doi.org/10.1093/oxfordhb/9780198712398.013.22>
- Wasow, Thomas (1972). Anaphoric relations in English. Doctoral dissertation, MIT, Cambridge, MA.
- Weir, Andrew (2012). ‘Left-edge deletion in English and subject omission in diaries’, *English Language and Linguistics* 16 (1): 105–129. <https://doi.org/10.1017/S136067431100030X>
- Weir, Andrew (2014). *Fragments and clausal ellipsis*. PhD thesis, University of Massachusetts, Amherst.
- Weir, Andrew (2015). ‘Fragment answers and ‘exceptional movement under ellipsis’: A PF-movement account’, in Thuy Bui and Deniz Özyildiz (eds), *NELS 45: Proceedings of the 45th annual meeting of the North East Linguistic Society*. Amherst, MA: GLSA, 175–88.
- Wilder, Chris (1997). ‘Some properties of ellipsis in coordination’, in Artemis Alexiadou and Tracy Hall (eds), *Studies in universal and typological variation*. Amsterdam/Philadelphia: John Benjamins, 59–107. <https://doi.org/10.1075/la.13.04wil>
- Wilder, Chris (1999). Right Node Raising and the LCA, in Sonya Bird, Andrew Carnie, Jason D. Haugen, and Peter Norquest (eds), *Proceedings of the 18th West Coast Conference on Formal Linguistics*. Somerville, MA: Cascadilla Press, 586–98.
- Wilder, Chris (2018). ‘Conjunction reduction and right node raising’, in Jeroen van Craenenbroeck and Tanja Temmerman (eds), *The Oxford Handbook of Ellipsis*. Oxford: Oxford University Press, 681–718. <https://doi.org/10.1093/oxfordhb/9780198712398.013.29>
- Williams, Edwin (1977a). Discourse and logical form. *Linguistic Inquiry* 8: 101–139.
- Williams, Edwin (1977b). Across-the-board application of rules. *Linguistic Inquiry* 8(4): 419–23.
- Williams, Edwin (1995). *Ellipsis*. Ms., Princeton University, Princeton.

- Winkler, Susanne (2003). Ellipsis at the interfaces: An information-structural investigation of sentence-bound and discourse-bound ellipsis in English. PhD thesis, University of Tübingen.
- Winkler, Susanne (2016). 'Ellipsis and information structure', in Caroline Féry and Shinichiro Ishihara (eds), *The Oxford Handbook of Information Structure*. Oxford: Oxford University Press, 359–382. <https://doi.org/10.1093/oxfordhb/9780199642670.013.31>
- Winkler, Susanne (2018). 'Ellipsis and prosody', in Jeroen van Craenenbroeck and Tanja Temmerman (eds), *The Oxford Handbook of Ellipsis*. Oxford: Oxford University Press, 357–386. <https://doi.org/10.1093/oxfordhb/9780198712398.013.15>
- Wurmbrand, Susi (2017). 'Stripping and topless complements', *Linguistic Inquiry* 48 (2): 341–366.
- Wurmbrand, Susi (2017). Stripping and topless complements, *Linguistic Inquiry* 48: 341–66. https://doi.org/10.1162/LING_a_00245
- Yoshida, Masaya (2005). The rightward movement analysis of gapping in NP and its structural implications, in John Aldrete, Chung-Hye Han, and Alexei Kochetov (eds), *Proceedings of the West Coast Conference on Formal Linguistics*. Somerville, MA: Cascadilla Press, 388–96.
- Yoshida, Masaya, David Potter and Tim Hunter (2019). 'Condition C reconstruction, clausal ellipsis and island repair', *Natural Language and Linguistic Theory* 37, 1515–1544. <https://doi.org/10.1007/s11049-018-9433-0>
- Yoshida, Masaya, Tim Hunter, and Michael Frazier (2015). 'Parasitic gaps licensed by elided syntactic structure', *Natural Language and Linguistic Theory* 33: 1439–71. <https://doi.org/10.1007/s11049-014-9275-3>
- Zagona, Karen (1982). Government and proper government of verbal projections. PhD thesis, University of Washington.
- Zagona, Karen (1988). 'Proper government of antecedentless VP in English and Spanish', *Natural Language and Linguistic Theory* 6. 95–128. <https://doi.org/10.1007/BF01791593>