SPANISH NULL SUBJECTS: DESCRIPTIVE AND ANALYTICAL ISSUES

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ABSTRACT. The goal of this article is to present a detailed overview of the empirical patterns concerning null subjects in Spanish, and the theories that have been proposed to account for them. After revising the syntactic, morphological and pragmatic aspects of the distinction between null and overt subjects in both main and subordinate clauses, the article discusses different approaches to (i) the nature of the null subject, (ii) the nature of the clausal property that makes them possible and (iii) the possible syntactic differences between null subjects and overt preverbal subjects.

Keywords. subjects, pro-drop, defective pronouns, ellipsis, contrast

RESUMEN. El objetivo de este artículo es presentar una visión detallada de los patrones empíricos relativos a los sujetos nulos en español, así como de las teorías que se han propuesto para darles explicación. Tras revisar los aspectos sintácticos, morfológicos y pragmáticos de la distinción entre sujetos nulos y expresos tanto en oraciones principales como en subordinadas, el artículo analiza diferentes enfoques sobre (i) la naturaleza del sujeto nulo, (ii) la naturaleza de la propiedad oracional que los hace posibles y (iii) las posibles diferencias sintácticas entre los sujetos nulos y los sujetos preverbales expresos.

Palabras clave. sujetos, pro-drop, pronombres defectivos, elipsis, contraste

1. Introduction: main issues on Spanish null subjects

One of the most characteristic syntactic properties of Spanish is the fact that null subjects are allowed in all contexts. The example in (1) compares Spanish with French, another Romance language, and shows that, while Spanish does not require an overt subject in this sentence, the equivalent French translation must have an overt pronoun:

(1)   a. (Ella) se llama María.
          she SE calls María
      'Her name is María'
    b. *(Elle) s'appelle Marie.
          she SE-calls Marie
      'Her name is Marie'

The capacity to allow sentences without an overt subject expression puts Spanish in the same group of languages as Italian, Greek or Polish, in contrast to languages like French, English or Dutch. The first group of languages receives the name of 'Pro-drop languages' (from 'Pronominal drop') or 'Null subject languages', while the second is generally called 'Non-pro-drop languages' or 'Overt subject languages'.

In this overview, I will focalise in the case of Spanish. I will first present the empirical patterns that dictate the availability of null subjects and the interpretation of overt subjects in contexts where null subjects are possible. Then, I will examine

different analyses of null subjects that are relevant for the Spanish patterns, which is frequently specified as a Consistent null subject language.

This article is structured as follows: in the rest of this section, I will introduce a few general observations that will define the main empirical and theoretical problems posed by null subjects in Spanish. §2 and §3 are devoted to the description of the distribution of null subjects and the interpretative contrasts that they establish with overt subjects in, respectively, main clauses (§2) and subordinate clauses (§3). §4 mixes descriptive and theoretical questions, as it is devoted to discussing which type of null subject language corresponds to the pattern documented in Spanish, from a typological perspective (§4.1), and to the description of the varieties of Spanish where it has been argued that null subjects are more restricted or less frequent (§4.2).

The theoretical discussion starts in §5, where I introduce a number of central background concepts that have framed all analyses of null subjects in Generative Grammar. As we will see, those analyses are typically characterised by three properties: the idea that the functional projection that introduces subjects is somehow different in null subject languages and overt subject languages, the idea that null subjects correspond to defective pronominal expressions, and the idea that overt pronominals in null subject languages are not in a canonical subject position. §6 discusses the position of overt subjects in Spanish, and §7 presents different theories about the defective nature of null subjects. §8 discusses a number of theories about the nature of the verbal inflection against the backdrop of the empirical facts that have been introduced in the previous sections and divides them according to whether they propose a syntactic mechanism to explain null subjects, or a PF deletion operation.

1.1. Main problems with Spanish null subjects

The nature of null subjects in Spanish is problematic both from an empirical and a theoretical perspective, as we will see in some detail in the following sections. Here I will only introduce some basic facts that are enough to show what type of questions the study of null subjects must deal with.

First of all, the general pattern in Spanish –at least on the surface– seems to be that sentences allow, but not force, that the subject is not overtly expressed. In what follows, I will mark that the subject is not expressed by the symbol 'ø' in the position where canonical subjects are expected. This is done for ease of exposition and should not be taken as a direct commitment that there is a null expression in that position (see §5-§8 for discussion). For instance, in (2) both versions of the sentence are equally grammatical:

(2)   a. ø   tengo   un coche.
        ø   have.1sg   a   car
   'I have a car'
     b. Yo   tengo   un coche.
        I   have.1sg   a   car
   'I have a car'

As the translation shows, in principle the meaning of these two sentences is identical. This does not mean that the two ways of expression are equivalent in all contexts. The sentence in (2b) has been associated to information-structure effects, whose exact characterisation is subject to some debate (§2.3), but which generally are interpreted as some form of emphasis or contrast with other potential referents.

Sometimes, though, the presence of an overt subject and its absence trigger different semantic interpretations. Montalbetti (1984) noted that, from the following two sentences, only the first can mean that nobody believes of oneself that he or she will win the lottery. The presence of an overt subject blocks the interpretation (unless focalised, cf. 3c).

(3) a. Nadie$_i$ piensa que ø$_i$ ganará   la lotería.
         nobody thinks that ø   will.win.3sg   the lottery
      'Nobody thinks that he will win the lottery'
     b. Nadie$_i$ piensa que él$_{*i}$ ganará   la lotería.
         nobody thinks that he will.win.3sg   the lottery
      'Nobody thinks that he (= some other specific person) will win the lottery'
     c. Nadie$_i$ piensa que solo él$_i$ ganará   la lotería.
         nobody thinks that only he   will.win.3sg   the lottery
      'Nobody thinks that only he will win the lottery'

The nature of this type of effect is unclear, and there are different ways to characterise it. The approach that claims that overt pronouns have a contrastive effect, beyond being perhaps too vague to clarify all instances of the phenomenon, must also face some empirical challenges. For instance, as noted in Amaral & Schwenter (2005), it is perfectly possible to find cases of contrastive subjects where, however, the subject is not overt. In (4), there is a clear contrast between the speaker and the wife of the speaker, and still the null subject can be used.

(4)   Mi mujer adora salir de fiesta. Personalmente, ø prefiero estar en casa.
      my wife   loves to.go of party. Personally,   ø prefer.1sg to-be at home
      'My wife loves going out. Personally, I prefer to stay home'

The interpretation patterns that null vs. overt subjects trigger are quite complex. This is the first research question that we will address in this article:

   i) What is the nature of the difference between overt and null subjects?

Another way of posing the same question is by asking which conditions, both in structure and interpretation, make it possible that there is no overt subject in a sentence. We will focus on this question mainly in §2 and §3, and it will be an ingredient of the set of facts that any of the theories in §5-§8 needs to address.

While in most cases null subjects are a possibility with semantic effects, there are also contexts where most varieties of Spanish ban overt subjects. The most significant of them is in the case of expletive subjects, that is, subject expressions that do not identify any of the arguments of the verb. While overt subject languages also need in such cases some non-referential pronominal expression (5a), Spanish in fact forbids an overt subject in the same cases (5b):

(5) a. *(It)   rains.
     b. (*Ello) llueve.
            it   rains
      'It rains'

As we will see in §3.2, there are reasons to think that another context of compulsorily null subjects is some non-finite clauses. This gives us a second question:

ii) What forces null subjects in some contexts?

Answering this question is equivalent to identifying which properties of the Spanish clause license an overt subject and conversely allow null subjects in most contexts. Whatever differentiates the structure that underlies a null and an overt subject structure should give us the resources to explain why the overt subject structure is not available in some contexts. We will see that the general answer to this type of question has been mixed, combining the idea that agreement plays a central role on the licensing of subjects (§2.4) with the possibility that Spanish does not require per se a subject unless it is independently introduced as an argument of the verb (§6).

At the same time, the proposal that the subject in Spanish can be null allows for different interpretations. 'Null' here can mean that the subject is present, but phonologically silent, or it can mean that the subject is not present in the cases where there is no overt expression. If the subject is present, the null nature can be interpreted as following from a syntactically defective nature, or as being a purely phonological fact that is similar to ellipsis or other forms of deletion (or non-materialisation of pronouns) (see §7 and §8). This can be stated as our third question in this article:

iii)   How are null subjects represented in syntax?

Finally, the idea that Spanish at least allows subjects to be null –whatever 'null' means– raises the issue of whether overt expressions are ever subjects in Spanish. Once we know that Spanish can have a null subject, nothing logically blocks that the structure of a sentence like (5a) is actually as in (5b) –where 'ø' may signal a silent pronoun, or simply that no subject position is projected in TP–.

(5)   a. Yo como.
          I   eat
       'I am eating'
       b. [CP... yo   [TP ø com-o...]]

It is at least logically possible that the overt expressions that traditionally have been analysed as subjects should be rather interpreted as topics in Spanish (see §6). This, also, can be stated as a fourth question which we will address:

iv)   Are structures with overt and with null subjects syntactically equivalent in Spanish?

In the set of questions that have just been presented, I have focused on data from Peninsular European Spanish. However, as the reader knows, the patterns are also subject to a significant degree of language-internal variation in Spanish, with Caribbean varieties (but not only) exhibiting a distinct behaviour in the distribution and frequency of null subjects. This issue will also be treated in this article, specifically in §4.2.

1.2. The classical characterisation of null subject languages
As we have already advanced, the fact that Spanish allows null subjects is also typologically significant. Since the early studies about null subjects in Generative

Grammar (Perlmutter 1968), there has been an ambition to frame the language-particular facts identified for languages like Spanish, Italian or Greek into a broader theory of language variation that ultimately explains what makes a null subject language possible. Therefore, in the course of this article, I will need to make reference to analyses that have been originally formulated for other languages, like Italian or Portuguese, because they also have an impact on the potential ways of accounting for the Spanish pattern.

As we will see in some detail in this presentation, there are many different theories about what makes a language allow null subjects. However, they all share a small set of assumptions that ultimately can be traced back to early work on languages that allow null subjects, in Perlmutter (1968, 1971), Taraldsen (1978, 1980), Chomsky (1981) and Rizzi (1982): some property of the functional head that introduces subjects in languages like English is different in languages like Spanish, and this makes it possible that no overt subject is introduced. This may mean several things: that the functional head acts as the subject, that the functional head lexicalises features of the subject, that the functional head licenses a defective pronoun, or simply that the functional head has morphophonological properties that allow deletion of the subject. I will state this as a question:

v) Which property of clauses differentiates null subject languages from overt subject languages?

Moreover, there is a significant body of evidence that within null subject languages it is possible to identify subclasses, where Spanish seems to correspond to a subtype called 'Consistent null subject languages'. Any answer to the question in (v) could aim to provide at least some directions to account for this degree of variation (see §4.1).

The typological question is tightly connected with another analytical problem: on the assumption that what differentiates null subject languages and overt subject languages is a property of a head that builds clauses, the expectation is that this clausal distinction will have effects for other phenomena that do not obviously manifest as whether an overt pronoun is necessary in the subject position. In fact, even before generative theories considered the possibility that null subjects and overt subject languages were differentiated by a parameter (§5.2), it was noted that languages which made general use of null subjects were typically characterised by a well-defined set of properties. These properties are the following, with the last two coming from a particular family of analyses of the nature of null subjects, which we will make precise later:

a) Rich overt subject-verb agreement in finite clauses
b) Apparent absence of so-called that-trace effects
c) Free subject-verb inversion
d) Lack of overt subjects in non-finite clauses
e) Subject-verb inversion in interrogatives

Starting with inflection, a very common observation in the literature is that languages that, like Spanish, license null subjects in most contexts can be characterised as heavily inflectional languages where all (or most) person-number combinations are morphologically differentiated at least in some tense. The following example, from Spanish, reminds the reader that this is the case at least in the present indicative:

(6) 1sg   cant-o
     2sg   cant-a-s
     3sg   cant-a
     1pl   cant-a-mos
     2pl   cant-á-is
     3pl   cant-a-n

The intuition, that allows both functionalist and formal accounts, is that the agreement allows for the independent identification of the subject referent, somehow licensing that it remains phonologically invisible. The general analysis until the 2000's was that in order to be null, the subject needed to enter a syntactic relation with the verbal inflection, and if that relation was of the right type, the subject could be null.

There are however many comments that are relevant here, and which I cover in §2.4: first of all, Spanish does not distinguish between all forms in all tenses (cf. for instance the imperfective indicative and all the subjunctives). Secondly, the 3rd person form is both used for non-participants and 2nd person participants through *usted(es)* 'you (polite)'. Unlike other languages, Spanish does not differentiate between inclusive and exclusive 1pl forms; it is unclear to what extent these undermines the alleged richness of Spanish inflection. In general, it is unclear what counts as 'rich' enough, given that languages like German differentiate almost all forms in the paradigm and do not allow null subjects outside from expletive cases (7).

(7) 1sg   leb-e
     2sg   leb-st
     3sg   leb-t
     1pl   leb-e-n
     2pl   leb-t
     3pl   leb-e-n

Also, we must warn the reader already that there are null subject languages without inflection, the so-called Radical Pro-Drop languages (§4.1.4).

Moving now to the second property, Perlmutter (1968) already noticed that languages without null subjects contrast with those that allow them in the grammaticality of structures where the subject of a subordinate declarative clause is extracted via wh-movement. The relevant sentence is the following in Spanish, where we mark the position that in principle the interrogative comes from as X:

(8) ¿Quién$_i$ crees   que X$_i$ ha ganado el concurso?
      who$_i$ think.2sg   that X$_i$ has won the competition?
     'Who do you think has won the competition?'

As can be seen in the translation, *that* is dropped in English. The literal word-by-word translation of the Spanish example to English is ungrammatical (all things being equal; see Pesetsky (2017) for a detailed description of the phenomenon).

(9) *Who$_i$ do you think that X$_i$ has won the competition?

This observation is originally due to Perlmutter (1968: 203), who actually presented it for French before English (for reasons that will be clear in §5.1), given that in that language the complementiser *que* 'that' cannot be dropped:

(10) *Qui   a-t-il   dit   que   X s'est évanoui?
       who   has-T-he   said that X has fainted?
       Intended: 'Who did he say fainted?'

Perlmutter (1968: 204) proposed that some (not all) overt subject languages have a surface filter that forces their subjects to be overt; as in the cases noted the subject of the subordinate clause is not overt, the sentence is ungrammatical. Spanish lacks that filter, and therefore the sentence is grammatical. In subsequent work, as the analysis of movement developed into a theory of traces (Chomsky & Lasnik 1977, Pesetsky 1982, Rizzi 1982), the phenomenon came to be known as That-trace effect: it assumed that what was ungrammatical was the sequence formed by the overt complementiser and the trace left by the displaced subject, thus analysing what we represented as 'X' as a trace of movement:

(11)   *Who$_i$ do you think that t_i has won the competition?

Rizzi's (1982) analysis was considered definitive for many years. In his account, the problem was not that English or French had a filter that Spanish or Italian did not have. Rather, for him the difference was that in Italian (or Spanish) a that-trace sequence never emerges, because the subject is not moving from a subject position. On the surface it seems that it moves from there, simply because these languages have a null subject in that position. Thus, the X position is not syntactically related to the interrogative:

(12) ¿Quién   crees   que ø   ha ganado el concurso?
       who   think.2sg   that ø   has won the competition?

The discussion of these facts, with more technical details, can be found in §5.1 and §5.2.

The third property that has been associated to null subject languages is the possibility of having postverbal subjects. Of course, the distinction between a preverbal and a postverbal subject has interpretative differences, but we will leave them aside in this introduction. The idea is that a language like Spanish –if the information structure is the right one– allows with the right intonation postverbal subjects in all verb classes:

(13) a. Vienen   invitados.
          come.3pl   guests
       'Some guests are coming'
       b. Grita la gente.
          screams the people
       'The people are screaming'
       c. Ha dicho algo tu madre.
          has said something your mother
       'Your mother has said something'

In contrast, inversion does not apply this freely –that is, without an overt syntactic trigger– in an overt subject language like English, all things being equal.

(14) a. *Are coming guests.

b. *Are screaming the people.
c. *Is talking to you your mother.

This contrast has also been viewed as an effect of the general availability of overt subjects, for instance through an analysis where the real syntactic subject is in the canonical preverbal position, with the overt nominal expression being in some lower position, possibly within the verbal phrase. In that case the structure of the Spanish sentences with inversion would be close to the following:

(15) a. ø vienen   invitados.
        ø come.3pl   guests
     'Some guests are coming'
     b. ø grita la gente.
        ø screams the people
     'The people are screaming'
     c. ø ha dicho algo tu madre.
        ø has said something your mother
     'Your mother has said something'

The fourth property comes as a consequence of the analyses that propose that heavily inflectional null subject languages, in contrast to Radical pro-drop languages, require the subjects to establish syntactic relations with inflection. As a consequence, the idea is that when inflection is not present, overt subjects would be impossible –in contrast to languages where the overt subjects are actually topics, or where topichood licenses a subject–. In §3.2.1 this pattern, and the ways of making what seems to be an overt subject combinable with a non-finite verb, are discussed in some detail.

(16) *María cantar una canción.
      María to.sing a song
     Intended: 'María is singing a song'

This observation is closely related to the compulsory subject-verb inversion in interrogatives. In Spanish (with some variation, §4.2.4), questions that involve a wh-element require subject-verb inversion.

(17) *¿Qué María ha hecho?
       what Maria has done?
     Intended: 'What has María done?'

As we will see (§6.1), a way of interpreting the inversion that appeals to the null subject nature of the language is to propose that the overt expression is actually not in a subject position. That subject position is, in this analysis, occupied by a null subject or not projected, and the preverbal subject is a topic or a focus. As the wh-element must be in a focus position, it competes with the overt expression. The inverted grammatical version is, then, not obtained by moving the verb to C, but by keeping the overt expression within the VP. Languages that do not allow null subjects are happy without the inversion because for them the overt expression is in a canonical subject position, so there is no competition with the focus wh-element. As can be seen, the analysis closely connects the availability of null subjects with the inversion through the idea that overt expressions must be in an information-structure related position.

After having introduced the five central questions that this article will deal with, let us now dig deep into the empirical patterns of null subjects in Spanish.

2. The distribution of null subjects in Spanish (1): main clauses

This section and the next are devoted to the presentation of the empirical patterns that the distribution of null subjects exhibits in Spanish, focusing on the vast majority of varieties (see §4.2 for dialectal variation). Here we will focus on the particular case of main clauses, while we will leave the description of subordinate finite and non-finite contexts for §3 –even though here we will have to introduce a few remarks about some cases of interaction between the subject of the main clause and a subordinate–.

This section is divided as follows: in §2.1 we will focus on expletive subjects, which is one of the contexts where Contemporary Spanish has compulsory null subjects irrespective of the information structure effects obtained with overt subjects. In §2.2, we will discuss different types of thematic null subjects, including under this label generic and arbitrary expressions. §2.3 specifically discusses the discourse effects of the alternation between null and overt subjects: we will see that there is a general notion of 'contrast' associated in most cases to overt pronominal subjects, and that this notion is interpreted as topic shift, disjoint reference or focalisation more specifically. §2.4 discusses the possible role of morphological marking in the alternation, focusing on cases where the verbal inflection is syncretic between two person-number combinations.

The core observation of this section is that, in cases where null subjects are possible, the presence of overt subjects is pragmatically interpreted by speakers as requiring some accommodation, whose specific type depends on the pronoun used, the communicative context and sometimes other members within the same utterance.

2.1. Expletives vs. referential subjects

The first general grammatical division that is relevant for the study of Spanish pro-drop is the one established between expletive and referential (or argumental) subjects (Platzack 1987, Koster 1987, Grewendorf 1989, Huang 1994). As is well-known, an expletive subject is a syntactically-present expression that occupies a canonical subject position but cannot be related to any thematic role assigned by the sentence predicate. Its counterpart, which is constituted by the syntactic expressions that play the role of subject but can be associated to a theta-role, is generally called 'argumental' or 'referential' subject (Perlmutter 1968, 1971).

While it is controversial to determine which predicates take an expletive subject (see, for instance, Ruwet 1991), Modern Spanish systematically lacks phonologically overt pronouns that appear in the subject position of sentences whose predicate has been analysed as impersonal in some sense, among them the following:

a) Weather predicates, including verbs like *llover* 'to rain', *nevar* 'to snow', *granizar* 'to hail', and non-verbal predicates like *estar nublado* 'to be cloudy', *ser de noche* 'to be night'.

(18) a. ø llueve.
           ø rains
      'It is raining'
      b. ø graniza.
           ø hails
      'It is hailing'

    c. ø es de noche.
       ø is of night
   'It is night'

b) Existential constructions, with verbs like *hay* 'there is'; some impersonal uses of verbs like *faltar* 'to be missing', *sobrar* 'to be too many', *bastar* 'to be enough' may probably be classified also here.

(19) a. ø hay   agua.
        ø is   water
    'There is water'
    b. ø sobran   problemas.
        ø be-too-many problems
    'There are too many problems'

c) Propositional predicates with a post-verbal overt subordinate clause, like *estar claro* 'to be clear', *ser falso* 'to be false', *ser buena idea* 'to be a good idea', etc., or the verb *ser* 'to be' used as a causal predicate. In all these cases it is generally believed that the post-verbal overt constituent does not occupy the syntactic subject position (in the following examples, we ignore the possible null subject in the subordinate clauses; see §3.2.1).

(20) a. ø está claro que es verdad.
        ø is   clear that is true
    'It is clear that it is true'
    b. ø es   mentira que sea verdad.
        ø is   lie   that is true
    'It is a lie that it is true'
    c. ø es   que no tengo dinero.
        ø is   that not have money
    '[The explanation] is that I have no money'

d) Some unaccusative constructions where the overt expression that gets the theta role assigned otherwise to the subject appears in a postverbal position, as in *suceder* 'to happen', *pasar* 'to happen, to go through'; again, here the general assumption is that the post-verbal expression is not in the syntactically canonical position for subjects.

(21) a. ø sucede que estoy enfermo.
        ø happens that am sick
    'It so happens that I am sick'
    b. ø pasan pájaros por la ventana.
        pass birds   by the window
    'There pass birds by the window'

Crucially, note that in these contexts it is not only that the subject can be null: in most varieties of Modern Spanish, in fact, they must be null, and the expression of a preverbal subject as a pronominal is deemed ungrammatical by most speakers.

(22) a. % Ello llueve.
        it   rains

b. % Ello   hay agua.
     it   is   water
Intended: 'There is water'
c. % Ello es que no tengo dinero.
     it   is that not have money
Intended: '[The explanation] is that I have no money'

This contrasts with cases of argumental subjects, which can be overt, at least, when the informational and animacy properties associated to the participants are in place.

(23) a. {ø / él}   está   enfermo.
          {ø / he}   is   sick
      'He is sick'
     b. {ø / ella} nació   anoche.
          {ø / she} was.born   yesterday-night
      'She was born yesterday night'

Thus, in most varieties of Modern Spanish there is no choice in the expression of expletive subjects: in contexts which have been argued to be expletive, it is radically ungrammatical to have an overt pronominal expression that plays the subject role.

It is important to note, however, that this situation is not absolute, and as in languages like English or French, different varieties of Spanish at least allowed the overt expression of expletive subjects. Silva-Villar (1998) documents cases like the following in 17th Century Spanish, taken from RAE & ASALE (2009: §16.2g):

(24) Ello no me espant[ó] que el hombre temiera aquella mujer.
     it   not me scared that the man feared that woman
     'It didn't scare me that the man feared that woman'

Camacho (2013: 49) documents cases of expletive in the same condition –an expletive associated to an overt postverbal clause– in the 18th Century.

(25) Ello es necesario indagar   qué vida lleva.
     that is necessary to.investigate   which life leads
     'It is necessary to investigate what type of life he is living'

This use remains among some speakers, in a formal language, restricted to the causal expression *Es que* 'the reason is that...' in formal contexts (Remberger 2020):

(26) Ello era que la mujer estaba embarazada.
     it   was that the woman was pregnant
     'The reason was that the woman was pregnant'

See also §4.2.1 for the presence of overt subjects in some contemporary American varieties, in particular in Dominican Republic.

2.2. Referentiality types
    Within the class of argumental subjects, which can have a specific referent, subtle but clear differences can be established with respect to the availability of null subjects. In this section I will revise first the difference between participant pronouns and 3rd

person pronouns, in order to then talk about the role of definiteness, specificity and genericity. I will end the discussion in this subsection with some observations about non-pronominal null subjects.

2.2.1. Participant pronouns

In Spanish, 1st and 2nd person pronouns can be null in every syntactic context, once the discourse conditions that we will discuss in §2.4 are satisfied (Enríquez 1984, Alarcos 1994, Lu 1997, Fernández Soriano 1999, Luján 1999, Alonso-Ovalle & D'Introno 2000, Devís Márquez 2012, Duguine 2014, Ortiz-López 2016, Martínez Orozco 2023). Within main clauses, all finite verbal forms allow the pronominal subject to be null when it includes to or corresponds to the speaker. I illustrate it with the singular form; as far as I can tell, the 1pl behaves in exactly the same way.

(27) a. ø com-o.
          ø eat-1sg
      'I am eating'
      b. ø comía.
          ø ate.impf.1sg
      'I was eating'
      c. ø com-í.
          ø eat-pfv.1sg
      'I ate'
      d. ø come-ré.
          ø eat-fut.1sg
      'I will eat'
      e. ø come-ría.
          ø eat-cond.1sg
      'I would eat'
      f. ø com-a.
          ø eat-sbj.1sg
      'I eat' (subjunctive)
      g. ø comie-ra.
          ø eat-impf.sbj
      'I was eating' or 'I ate' (subjunctive)
      h. ø he   comido.
          ø have.1sg   eaten
      'I have eaten'

At the same time, the pronoun can be overt also in all these contexts. We will revise the discourse effect of having an overt pronoun in §2.3. For the time being, suffice it to say that the overt subject is generally interpreted as conveying a contrastive effect that, for instance, suggests that –within the universe of discourse– the predicate can only be truthfully predicated from the pronoun referent.

(28) a. Yo   com-o.
          I   eat-1sg
      'I am eating'
      b. Yo   comía.
          I   ate.impf.1sg
      'I was eating'

    c. Yo   com-í.
        I   eat-pfv.1sg
  'I ate'
    d. Yo   come-ré.
        I   eat-fut.1sg
  'I will eat'
    e. Yo   come-ría.
        I   eat-cond.1sg
  'I would eat'
    f. Yo   com-a.
        I   eat-sbj.1sg
  'I eat' (subjunctive)
    g. Yo   comie-ra.
        I   eat-impf.sbj
  'I was eating' or 'I ate' (subjunctive)
    h. Yo   he   comido.
        I   have.1sg   eaten
  'I have eaten'

Like that, for instance, even though the two sentences codify the same proposition, there is an information-structure difference between the two sentences in the following example:

(29) a. ø com-o.
         ø eat-1sg
  'I am eating'
    b. Yo   com-o.
        I   eat-1sg
  'I am eating'

In the first sentence, with a null subject, the interpretation is considered to be informationally neutral, while in the second sentence, with an overt subject, an additional effect is created: the speaker wishes the make it clear that he is eating, in contrast to other possible referents that are present in the discourse. If the speaker is a worker in a factory and is having lunch, he would use the sentence with the overt pronoun in a context where, at least, he does not want to imply that other workers in the factory are also eating at that point. He may want to make clear that he, and only he, is eating now, or maybe he wants to say that he does not know whether other people are eating at that point, or maybe that, in contrast to the addressee, he is eating at that point. We will see in §2.3, however, that contrast is not always required when the pronoun is overt.

The fact that the subject can be overt, and the semantic and pragmatic effects that this creates, are in principle orthogonal for the consideration of a language as a null subject language of some type. What is consider crucial in order to identify a language as a null subject language is that the relevant type of subject can be null in a particular syntactic context, with the eventual effects that its overtness creates being a secondary factor that may be treated as an interpretative effect, even as an extralinguistic effect (cf. Chomsky's 1981: 65 Avoid Pronoun Principle, which is discussed in §5.2).

Like 1st person pronouns, Spanish also allows null 2nd person subjects in all relevant forms. Here, again, I illustrate with the 2sg, and as far as I know the 2pl behaves in

exactly the same way. Note also that imperative forms, which are only properly imperative with 2nd person subjects, are included here.

(30) a. ø come-s.
     ø eat-2sg
  'You are eating'
  b. ø comía-s.
     ø ate.impf-2sg
  'You were eating'
  c. ø comi-ste.
     ø eat.pfv-2sg
  'You ate'
  d. ø come-rás.
     ø eat-fut.2sg
  'You will eat'
  e. ø come-ría-s.
     ø eat-cond-2sg
  'You would eat'
  f. ø com-a-s.
     ø eat-sbj-2sg
  'You eat' (subjunctive)
  g. ø comie-ra-s.
     ø eat-impf.sbj-2sg
  'You were eating' or 'you ate' (subjunctive)
  h. ø has   comido.
     ø have.2sg   eaten
  'You have eaten'
  i. Come   ø.
    eat.imp   ø
  'Eat!'

Again, and in parallel to 1st person pronouns, 2nd person pronouns can be overt in each one of these forms, with the contrastive effect that has been described for 1st persons.

(31) a. Tú   come-s.
     you   eat-2sg
  'You are eating'
  b. Tú   comía-s.
     you   ate.impf-2sg
  'You were eating'
  c. Tú   comí-ste.
     you   eat.pfv-2sg
  'You ate'
  d. Tú   come-rás.
     you   eat-fut.2sg
  'You will eat'
  e. Tú   come-ría-s.
     you   eat-cond-2sg
  'You would eat'

    f. Tú   com-a-s.
       you   eat-sbj-2sg
   'You eat' (subjunctive)
    g. Tú   comie-ra-s.
       you   eat-impf.sbj-2sg
   'You were eating' or 'you ate' (subjunctive)
    h. Tú   has   comido.
       you   have.2sg   eaten
   'You have eaten'
    i. Come   tú.
       eat.imp   you
   'YOU Eat!'

The overt 2nd person pronouns also trigger contrastive effects:

(32) a. ø   come-s.
        ø   eat-2sg
     b. Tú   come-s.
       you   eat-2sg
   'You are eating'

In the null subject sentence, the speaker may be completely neutral with respect to whether there are other participants in the context, and whether they also eat or not. In the sentence with an overt 2nd person subject, in contrast, the speaker may wish to signal that the addressee is the only one eating at that moment, and that he is not eating at all, or that he does not know whether other referents in the discourse situation are eating.

The same applies to the pronoun *vos* 'you' used in familiarity contexts in different American varieties: like *tú* and *vosotros*, this pronominal form can be null in all tenses, and when it is overt it conveys some version of contrast, just like the pronouns revised so far.

This does not exhaust the types of participant pronouns in Spanish. The 2nd person form of address that conveys distance or respect is a pronominal form with a nominal origin, *usted* 'you', from Old Spanish *vuestra merced* 'your honour' (Penny 1993). This form has also a plural form *ustedes* which is used as a 2nd person pronoun, with the same respect effect only in part of European Spanish. Importantly, this form triggers third person agreement consistently, even though the semantic interpretation is 2nd person.

Like other participant pronouns, *usted(es)* can be null in all contexts.

(33) a. ø   come.
        ø   eat.3sg
   'You are eating' (respect)
    b. ø   comía.
        ø   ate.impf.3sg
   'You were eating' (respect)
    c. ø comi-ó.
        ø eat-pfv.3sg
   'You ate' (respect)
    d. ø   come-rá.

    ø   eat-fut.3sg
   'You will eat' (respect)
  e. ø   come-ría.
     ø   eat-cond.3sg
   'You would eat' (respect)
  f. ø   com-a.
     ø   eat-sbj.3sg
   'You eat' (subjunctive, respect)
  g. ø   comie-ra.
     ø   eat-impf.sbj.3sg
   'You were eating' or 'you ate' (subjunctive, respect)
  h. ø   ha   comido.
     ø   has   eaten
   'You have eaten' (respect)
  i. Coma   ø.
    eat.imp   ø
   'Eat!' (respect)

Like the other forms, the pronoun can be overt in any context as well.

(34) a. Usted   come.
       you   eat.3sg
   'You are eating' (respect)
  b. Usted   comía.
      you   ate.impf.3sg
   'You were eating' (respect)
  c. Usted   comi-ó.
      you   eat-pfv.3sg
   'You ate' (respect)
  d. Usted   come-rá.
      you   eat-fut.3sg
   'You will eat' (respect)
  e. Usted   come-ría.
      you   eat-cond.3sg
   'You would eat' (respect)
  f. Usted   com-a.
      you   eat-sbj.3sg
   'You eat' (subjunctive, respect)
  g. Usted   comie-ra.
      you   eat-impf.sbj.3sg
   'You were eating' or 'you ate' (subjunctive, respect)
  h. Usted   ha   comido.
      you   has   eaten
   'You have eaten' (respect)
  i. Coma   usted.
    eat.imp   you
   'Eat!' (respect)

Importantly, there is an additional difference with the rest of participant forms: in contrast to the usual 1st and 2nd person pronouns, overt *usted(es)* does not trigger a

contrastive effect equivalent to the one noted for 2nd person pronouns in all contexts. For instance, in imperatives the two following sentences may equally lack any form of contrast (RAE & ASALE 2009: §33.5h):

(35) a. Pase   ø,   por favor.
          come.in   ø,   please
      'Please, come in'.
      b. Pase   usted,   por favor.
          come.in   you,   please
      'Please, come in'.

    In the sentence with an overt subject, there is no notion of contrast involved, if the intonation is neutral –that is, the mere presence of the overt subject does not trigger a contrastive reading, unlike with the other pronouns–. The use of the overt subject does not mean that the speaker wants only that addressee, and nobody else, to come in: if the addressee comes with someone else, both the null subject and the overt subject versions can be interpreted as an invitation for the two of them to come in, directed only to one of them. If a contrastive reading is wanted, the pronoun must receive a contrastive stress, just like in Non-pro-drop languages.

(36) Pase   USTED.
      come.in YOU
      'YOU come in'.

    RAE & ASALE (2009) suggest that the lack of contrast may be related to the nominal origin of the expression. Without developing the claim, one can only guess that what this text has in mind is that overt pronouns carry special features, responsible for contrast, which other overt noun phrases lack. Collins & Ordóñez (2021) take a different route: following the notion of imposter, taken from Collins & Postal (2012), they propose that *usted* is in fact a nominal structure which contains a null 2nd person pronoun which does not trigger agreement. Being null, the 2nd person pronoun expectedly does not trigger a contrastive reading per se, just as in the other cases revised. An argument in favour of their analysis is that other nominal expressions that are used to refer to addressees lack contrastive effects when they are overt. Consider the following examples, which should all be interpreted as invitations directed to the subject reference as an addressee:

(37) a. Su Santidad puede pasar.
          his holiness may come.in
      'Your holiness may come in'
      b. Su majestad puede pasar.
          his majesty may come.in
      'Your majesty may come in'
      c. Su excelencia puede pasar.
          His excellency may come.in
      'Your grace may come in'

    In all these cases, like in the case of *usted*, the expression triggers third person agreement even though they are used to refer to the addressee, and in all these cases the use of the overt expression does not trigger a contrastive reading –that is, in none of the

three sentences one interprets that the addressee is the only one in the discourse situation that is invited to come in, alone–. Like *usted*, these expressions are candidates to being imposters, nominal structures which contain a null 2nd person pronoun that does not trigger contrast.

A problem with Collins & Ordóñez' (2021) account, however, is that imposters referring to the 1st person do seem to trigger contrast when overt. Consider the following sentence:

(38)   Servidor de ustedes se va a dormir.
       servant of yours   SE goes to sleep
       'Yours truly is going to bed'

Servidor de ustedes is an imposter that can be used to refer to the speaker. A parallel analysis to the one assigned to *usted* would expect that it is a nominal expression that contains a null 1st person pronoun. However, that sentence is indeed contrastive: (38) is clearly interpreted as a statement where the speaker wants to say that, as for him, he is going to bed, explicitly leaving outside this claim other participants in the discourse situation (that is, (38) cannot be interpreted as a subtle invitation to join the speaker in bed, or as an encouragement to go to sleep because it is too late).

An alternative explanation, with a functionalist flavour, may be offered: in contrast to *servidor de ustedes*, the expressions *usted, su excelencia, su majestad*, and so on are informative beyond the identification of the referent because they convey different degrees of overt respect that is directed towards the addressee. The overt presence of these forms, then, may be interpreted as a way to explicitly signal some form of social meaning. If the contrastive effect is purely pragmatic –in the sense that it is not encoded through formal features, but emerges as part of procedural meaning–, the respect meaning is enough to explain why the speaker chose not to leave the subjects as null expressions. This type of explanation requires, in practice, to treat *tú, vosotros* and *vos* not as markers of familiarity or solidarity, but rather as unmarked forms, so that their overt presence is not directly interpreted as conveying social meaning, and therefore the contrastive interpretation needs to be triggered.

To conclude: with the appropriate discourse restrictions, Spanish always allows null participant subjects referring to the 1st or 2nd person in any main clause, without any relevant grammatical distinction.

2.2.2. Third person pronouns

Null 3rd person subjects have a broader distribution in Spanish; specifically, inanimate 3rd person subjects must be null, even in contexts where the general notion of contrast is active.

First, let us show that, when the referent is animate –typically, human– null 3rd person subjects are possible in all the verbal forms, both in the singular and in the plural. This shows that, like 1st and 2nd person pronouns, null subjects are always possible in these contexts, provided the discourse conditions are satisfied.

(39) a. ø   come.
         ø   eat.3sg
      'He is eating'
      b. ø   comía.
         ø   ate.impf.3sg
      'He was eating'

    c. ø   comi-ó.
       ø   eat-pfv.3sg
    'He ate'
    d. ø   come-rá.
       ø   eat-fut.3sg
    'He will eat'
    e. ø   come-ría.
       ø   eat-cond.3sg
    'He would eat'
    f. ø   com-a.
       ø   eat-sbj.3sg
    'He eats' (subjunctive)
    g. ø   comie-ra.
       ø   eat-impf.sbj.3sg
    'He was eating' or 'he ate' (subjunctive)
    h. ø   ha   comido.
       ø   has   eaten
    'He has eaten'

If the referent is human, the pronoun can be overt in all these contexts as well. I illustrate with the masculine singular form, but as far as I can tell the same pattern is found with feminine and plural forms.

(40) a. Él   come.
       he   eat.3sg
    'He is eating'
    b. Él   comía.
       he   ate.impf.3sg
    'He was eating'
    c. Él   comi-ó.
       he   eat-pfv.3sg
    'He ate'
    d. Él   come-rá.
       he   eat-fut.3sg
    'He will eat'
    e. Él   come-ría.
       he   eat-cond.3sg
    'He would eat'
    f. Él   com-a.
       he   eat-sbj.3sg
    'He eats' (subjunctive)
    g. Él   comie-ra.
       he   eat-impf.sbj.3sg
    'He was eating' or 'he ate' (subjunctive)
    h. Él   ha   comido.
       he   has   eaten
    'He has eaten'

There are two main differences with the pattern exhibited by 1st and 2nd person pronouns, and both of them may be an effect of the independent interpretation of each

pronoun group rather than the effect of different conditions on how null subjects work for each group. The first one is that overt 3rd person subjects must be interpreted as animate, typically human or personified (Fernández Ramírez 1951, Silva-Corvalán 1994, Luján 1999, Schwenter 2002, Posio 2012, among many others). Imagine that in the previous discourse we have previously talked about a table and a wardrobe.

(41) Ayer   me compré   una mesa y un armario.
      yesterday   me bought.1sg   a   table and a wardrobe
      'I bought a table and a wardrobe yesterday'

Introducing two different inanimate referents opens up the possibility that the following sentences will require overt subject pronouns if one wants to contrast the two referents. However, the following sentence is ungrammatical:

(42) *Ella   es de madera y él es de metal.
        she   is of wood   and he is of metal
      Intended: 'It [the table] is made of wood, and it [the wardrove] is made of metal'

Note that in Spanish *mesa* 'table' is feminine and *armario* 'wardrove' is masculine, which means that gender marking should be enough to distinguish between the two referents. The general consensus is that the sentence is ungrammatical because the overt pronouns in the subject position must receive an animate reading which does not correspond to the semantic denotation of a chair and a wardrove. If one wishes to contrast the two entities, other overt expressions must be used in the subject position. For instance:

(43) La primera es de madera y el segundo es de metal.
      the first   is of wood   and the second is of metal
      'The first is made of wood and the second is made of metal'

This effect has been taken to be a particular instantiation of the Avoid Pronoun principle (Chomsky 1981: 65). This principle takes as an underlying assumption that languages which allow null subjects will always prefer null subjects, and will only use overt subjects when independently required by other principles, which are assumed to be generally of a semantic or pragmatic nature. The association to animacy that overt pronouns trigger in the subject position is assumed to be a semantic effect –with other pragmatic effects, which we will revise in §2.3–.

The general philosophy underlying the Avoid Pronoun principle is that the semantic and pragmatic effects associated to overt pronouns will only emerge in contexts where the null pronoun is possible, such as the subject position. In contexts where the overt pronoun is compulsory they will not emerge. This prediction is confirmed. Another context where Spanish allows null pronouns is the direct object position:

(44) a. ø me vio   ø.
          ø me saw.3sg
        'He saw me'
      b. ø me vio   a   mí.
          ø me saw.3sg   DOM   me
        'He saw ME'

As can be seen above, the presence of an object clitic –which is compulsory in this context– contrasts with the optional presence of the strong pronoun. When this pronoun appears overtly, there is a contrastive effect similar to the ones described above. Otherwise there is none. This is in accordance with the Avoid Pronoun principle: as null pronouns are licensed, an overt pronoun must have an additional effect.

Correlatively, strong overt pronouns (not clitics) are impossible in the object position when the referent is not animate.

(45) *Compré   ella y él.
       bought.1sg   her and him
       Intended: 'I bought that and that'

A context where Spanish does not allow null strong pronouns is after a preposition. The Avoid Pronoun principle does not apply here, then, and the prediction is therefore that 3rd person overt pronouns will be possible even when the referent is not animate. The next example shows that Spanish requires prepositions to have a non-clitic complement, and thus the pronoun cannot be dropped.

(46) a. Hablé   con ella.
          talked.1sg   with her
      'I spoke with her'
      b. *Hablé   con la.
          talked.1sg   with her.clitic
      Intended: 'I spoke with her'
      c. *Hablé   con ø.
          talked.1sg   with ø
      Intended: 'I spoke with that person'

The following sentence shows that in this context the strong pronoun can refer to the non-animates *mesa* 'table' and *armario* 'wardrove'.

(47) Ayer   me hice con ella [= the table] y con él [=the wardrove].
      yesterday   me made with her   and with him
      'Yesterday I got that and that'

Moreover, the overt pronoun after a preposition does not even need a contrastive reading of any type (see §2.3 below for a better explanation of what is meant by 'contrast'). The following sentence is possible even if only the table is activated in the previous speech.

(48) Ayer   me hice con ella [= the table].
      yesterday   me made with her
      'Yesterday I got that'

Therefore, in the subject (and object) position, overt third person pronouns must be interpreted as animate, most typically human. Notice, however, that this is not in itself a difference with 1st and 2nd person pronouns that refers to different licensing conditions: overt 1st and 2nd person pronouns are always possible because, by definition, the speaker and the addressee in a speech act must be human, or at least treated as such through personification. 3rd person pronouns do not identify the

participants in the speech act, and therefore allow also non-animate referents, and that is what underlies the restriction.

From this perspective, it is clear that 3rd person pronouns are not subject to additional restrictions when overt, but rather that all overt pronominal subjects in Spanish must be animate, with 3rd person pronouns being the only ones that have another option, and therefore those that may be ungrammatical in some cases. This observation is crucial when evaluating what type of null subject language Spanish is (§4.1.5).

A second difference that can be identified may be also related to the independent asymmetries between participants in the speech act and 3rd person referents. Admittedly, in absolute start of a discourse, a null 3rd person subject is not completely natural. Imagine that I enter my colleague's office and utter the following sentence:

(49) ø es una persona muy amable.
      ø is a   person   very kind
      'S/he is a very kind person'

In that context, the sentence is marked. One may make it more natural by deictic reference; for instance, when I produce this sentence I may be pointing towards someone else that can be seen outside the window, or may be in a photo that my colleague has on the screen of her computer. However, lacking these hints, the sentence above is not felicitous.

If my colleague and I share a shared knowledge of a salient third person referent, the following sentence, with an overt subject, can be acceptable:

(50) Ella   es una persona muy amable.
      she   is a   person   very kind
      'She is a very kind person'

Clearly, in absolute start of the discourse an overt subject seems to be required in this particular context, if only to set the topic of the conversation that I am initiating (see §2.3). Contrast this with the following sentences, with a participant null subject:

(51) ø eres   una persona muy amable.
      ø are.2sg a   person   very kind
      'You are a very kind person'
(52) ø soy una persona muy amable.
      ø am a person   very kind
      'I am a very kind person'

In these cases, the sentences are felicitous. My interlocutor may ask about which reasons I have to say that, or where I am driving at with this remark, but the identification of the discourse topic can be established without an overt pronoun.

The explanation that underlies this difference is, of course, that the two participants in a speech act are by default activated by the mere existence of the speech act, which cannot exist without them (see in particular Aijón Oliva & Serrano 2010, Posio 2012). Uttering a sentence automatically hardwires in the utterance act the existence –and identification– of a speaker and an addressee, but it does not in itself activate 3rd person referents, unless they are explicitly mentioned in the utterance –or accessible otherwise in the context, through deixis for instance–.

Again, the difference that we have identified here is not in itself a difference on different licensing restrictions for null and overt 3rd person pronouns. The difference comes from the meaning itself of being a 3rd person as opposed to a 1st or 2nd: in both cases, using a null subject pronoun involves somehow that the referent has already been activated in the discourse. Participant pronouns can be null in all contexts because they are automatically activated without needing to mention them; 3rd person pronouns require additional activation procedures, which means they may not be null in particular discourse-initial contexts.

2.2.3. Definites, indefinites and non-specifics

In principle, the definiteness of the antecedent of the pronoun does not play a role in the distribution of null and overt subjects in Spanish. With the appropriate discourse conditions in place, both forms can refer to both definite and indefinite antecedents. The following example illustrates the case of a definite antecedent, where all proper names would also belong:

(53) a. Mi primo vino a visitar a mi abuelo. ø estaba enfermo, pero fue bonito.
          my cousin came to visit DOM my grampa. ø was sick, but was beautiful
       'My cousin came to visit my grampa. He was sick, but it was beautiful'
      b. Mi primo vino a visitar a mi abuelo. Él estaba enfermo, pero fue bonito.
          my cousin came to visit DOM my grampa. He was sick, but was beautiful
       'My cousin came to visit my grampa. He was sick, but it was beautiful'

Either subject is possible; in the case of the overt subject, the notion of contrast may favour an interpretation where the referent is 'my grampa', who is not in the subject position (see §2.3 below for discussion), but in either case the two sentences are acceptable with a definite antecedent.

Provided they are specific –in the sense that they correspond to a referent–, it is equally possible that both the null subject and the overt subject refer to an indefinite expression, as in the following example.

(54) a. Un médico vino a visitar a un paciente. ø estaba triste, pero fue bonito.
          a doctor came to visit DOM a patient. ø was sad, but was beautiful
       'A doctor came to visit a patient. He was sad, but it was beautiful'
      b. Un médico vino a visitar a un paciente. Él estaba triste, pero fue bonito.
          a doctor came to visit DOM a patient. he was sad, but was beautiful
       'A doctor came to visit a patient. He was sad, but it was beautiful'

The interpretative effect of the overt pronoun is also equivalent to the one that the definite antecedents trigger: the overt subject favours coreference with the direct object ('a patient'), but both sentences are grammatical.

Some differences are identifiable with non-specific antecedents, though. Take the following sentence, where the subjunctive marking in the relative clause forces the pronoun *alguien* 'someone' to be non-specific in this context.

(55) Juan busca a alguien que sepa japonés.
      Juan searches DOM someone that knows.sbj Japanese
      'Juan is searching someone that speaks Japanese'

The continuation with a second sentence where the subject is coreferential with the non-specific pronoun produces different results with the null and the overt subjects. The structure with a null subject, where the predicate makes it clear that it must be the someone that speaks Japanese, is acceptable:

(56) Además, ø debe tener título de traductor jurado.
    also,   ø   must have certification of translator sworn
    'Additionally, he [=someone] must have a sworn's translator certification'

In contrast, the sentence with an overt subject is degraded, at least.

(57) ?? Además, él debe tener título de traductor jurado.
      also,   he must have certification of translator sworn
      Intended: 'Additionally, he [=someone] must have a sworn's translator certification'

Note that, in principle, we should expect the overt pronoun to be allowed by the fact that the referent picked is not the subject of the previous sentence, as in the grammatical specific definite and indefinite cases above.

The same results apply to definite non-specific examples. The following sentence contains a non-specific definite –there is no winner at the point where the sentence is uttered, but that eventual winner will be unique, which licenses the definiteness (cf. Leonetti 1999)–.

(58) Mañana   entrevistaré   a   la mujer   que gane el concurso.
    tomorrow   will.interview.1sg DOM   the woman that win.sbj the competition
    'Tomorrow I will interview the woman that will win the competition'

As before, a subsequent sentence with a null subject is perfectly acceptable:

(59) ø tendrá   que responder a todas mis preguntas.
    ø will.have   to   answer   to all   my questions
    'She will have to answer all my questions'

And also, like before, the overt pronoun is not allowed, in particular when there is no contrastive focus on the pronoun:

(60) ?? Ella tendrá   que responder a todas mis preguntas.
      she   will.have   to   answer   to all   my questions
      Intended: 'She will have to answer all my questions'

Thus, it seems that the interpretation of the overt pronoun must be referential, unless independently licensed by the need to focalise (see §2.3.2); in contrast, the null subject is compatible with cases in which there is no referent, as one could independently expect given its obligatoriness with expletive subjects.

For completeness, it is important to point out that certain non-specific pronouns cannot function as antecedents of the null subject or the overt subject if they are in two separate sentences (Cinque 1990). Non-specific quantifiers like *nadie* 'nobody', nada 'nothing', *ningún* N 'no N' produce ungrammatical results both with overt and null

subjects equally, and they cannot be antecedents of pronouns in non-Pro-drop languages either:

(61) a. *No respondió nadie$_i$. ø$_i$ no sabía   la respuesta.
       not answered nobody. ø not knew.3sg the answer
    Intended: 'Nobody answered. Nobody knew the answer'
    b. *No respondió nadie$_i$. Él$_i$ no sabía   la respuesta.
       not answered nobody. he   not knew.3sg the answer
    Intended: 'Nobody answered. Nobody knew the answer'
(62) Nobody$_i$ answered. He$_i$ didn't know the answer.

Given that non-specifics in general can function as antecedents of null subjects, this property must be related to some other characteristic which does not involve the presence of referents. Cinque (1990) independently notices that the relevant pronouns do not function in Clitic Left Dislocation contexts. This contrasts with the non-specifics that can function as antecedents of null subjects, as shown in the following example:

(63) a. A   alguien$_i$ que sepa   japonés   lo$_i$ busco yo.
       DOM   somone that knows.sbj Japanese   him search I
    'Someone that speaks Japanese, I will search for him myself'
    b. *A   nadie$_i$ que sepa   japonés   no lo$_i$ conozco yo.
       DOM   nobody that knows.sbj   Japanese   not him know I
    Intended: 'I don't know anyone that speaks Japanese'

2.2.4. Generics and arbitrary readings
Spanish shows also special conditions on the distribution of null subjects in contexts where the subject receives a generic or arbitrary reading. In what follows, we will treat generics as usual: expressions which denote a whole kind of entities without picking any particular exemplar within the kind (see Chierchia et al. 1995 for discussion). Arbitrary (Chomsky & Lasnik 1977, Chomsky 1980) will refer here to cases where there is existential quantification over at least one member of a class, without committing to whether there are additional members involved, and without identifying those members.
The following example illustrates a sentence with a bona fide generic subject in Spanish:

(64) Se   debe   traer identificación al examen.
    SE   must.3sg   bring identification to-the exam
    'One must bring an identification to the exam'

The arbitrary subject in main clauses in Spanish is virtually restricted to 3pl sentences like the following.

(65) ø llaman   a la puerta.
    ø knock.3pl at the door
    'Someone (possibly, more than one person) is knocking at the door'

In general, as we will now show, Spanish requires subjects to be null in arbitrary contexts and, perhaps, subjects to be overt in generic contexts.

The interest of the null vs. overt subject distinction in generic contexts lies on the claim made in some works (Holmberg 2005, Holmberg et al. 2009, Biberauer et al. 2010) that languages which make the broadest use of null subjects require overt subjects in generic contexts (see §4.1.2 below). It is clear that Spanish contrasts with languages like Brazilian Portuguese with respect to whether a null 3sg subject can act as the subject of a generic statement, at least with respect to the need to have additional marking. The following sentence in Spanish cannot be interpreted as a generic:

(66) ø puede   aparcar aquí.
      ø can.3sg park   here
      'He can park here' / 'You (polite) can park here' (not 'It is allowed to park here')

Clearly, generic sentences in Spanish require some form of marking in order to be compatible with the generic interpretation of a pronominal subject. A different question is whether the marking corresponds to a pronominal generic form in the subject position or not. When the subject is not a nominal expression, Spanish has two main strategies for generic statements, illustrated in the following two examples.

(67) a. Se   vive bien aquí.
         SE   lives well here
      'One lives well here'
      b. Uno vive bien aquí.
         one lives well here
      'One lives well here'

With respect to the first case, which is an impersonal *se* instance, Holmberg's (2005) has to commit to the analysis where the reflexive is a pronominal expression in the subject position –as a subject clitic–, an analysis that exists in Spanish since Oca (1914) but which is by no means uncontroversial, given the existence of alternative analyses where the reflexive marks the reduction of the verbal argument structure (see Fábregas 2021 for discussion). In other words, for the claim to be valid one has to show that the structure of the impersonal se construction does not involve a null pronoun in the canonical subject position.

(68) ø se   vive bien aquí.
      ø SE   lives well here
      'One lives well here'

The case of *uno* 'one' is also not straightforward, although it is less controversial that in such cases the pronoun is in a subject position. The controversy is rather whether the pronoun is generic or, on the other hand, has no quantificational power and must be bound by an appropriate generic operator. One first sign that the pronoun itself does not directly encode genericity is that the generic interpretation depends on other genericity inductors in the sentence, including grammatical aspect (Ridruejo 1981, Hernanz 1990). The pronoun in the sentence above, like the one in (69) below, can be interpreted as generic because the grammatical aspect is imperfective.

(69) Uno vivía   bien aquí.
      one lived.impf well here
      'One used to live well here'

As soon as the grammatical aspect is perfective, the generic reading gets blocked and one obtains an existential reading which may be partitive (one out of a group) or not:

(70) a. Uno vivió   bien aquí.
         one   lived.pfv   well   here
      'One person (from a previous set) lived well here'
      b. Uno vino   preguntando por ti.
         one   came.pfv   asking   for you
      'Someone came asking for you'

In contrast, note that the existential and partitive readings are licensed in otherwise generic contexts:

(71) a. Uno que   escribe poemas vive en esta casa.
         one   that   writes   poems   lives in this house
      'Someone that writes poems lives in this house'
      b. De los estudiantes, uno habla japonés.
         of the students,   one speaks Japanese
      'One of the students speaks Japanese'

If the pronoun conveyed directly a generic reading, we would expect perfective sentences to be either blocked by the pronoun, or the pronoun to maintain the generic reading in these contexts, against the attested facts (see Gutiérrez Rodríguez & Pérez Ocón 2024 for a recent overview of contexts). The fact that the generic reading, against the partitive and the existential readings, requires special contexts strongly suggests that the generic reading is derived from the more basic existential or partitive one, which is a general observation in the literature.

Secondly, it has been noted (Fernández Ramírez 1951, Gómez Torrego 1992) that speakers frequently use the pronoun *uno* as a strategy to defocalise the speaker (Serrano 2019, Aijón Oliva 2019), but still referring to oneself (see also Gelabert-Desnoyer 2008, De Cock 2014, Fábregas 2023a, Gutiérrez Rodríguez & Pérez Ocón 2024). In the following example, the speaker –a woman– uses the pronoun although she obviously is talking about herself.

(72) Una   siempre tiene razón aunque no le hagan caso.
      one   always   has   reasons although not her made case
      'One is (=I am) always right, even though people don't believe her (= me)'

Gutiérrez-Rodríguez (2024) show that, for instance, unlike the existential reading, this use is blocked in presentational contexts, where definite nominals are excluded. The following sentence blocks the use equivalent to the 1st person:

(73) Hay   una que siempre tiene razón.
      there.is   one that always   has reason
      'There is one that is always right'

There is an independent debate with respect to whether this 1st person use –that has come to be known as the 'speaker-concealing use'– is derived by pragmatic implicature

from the existential use (see De Cock 2014, Gutiérrez Rodríguez & Pérez Ocón 2024) or the generic reading is obtained from the concealing 1st person use by defocalising the speaker opening for a broader set of potential speech situations where anyone could be the speaker (Fábregas 2023a). That controversy is orthogonal to our purposes here, as both views agree that the pronoun *uno* is not a generic pronoun, but rather becomes generic in the appropriate contexts. Therefore, the compulsory nature of the pronoun as an overt subject does not provide evidence that Spanish rejects null generic subjects: it may be that genericity in such cases is obtained with an operator that requires an appropriate variable, provided by *uno*, to be licensed.

At the same time, there are signs that show that, at least in some cases, Spanish does allow null generic subjects. Clearly, when genericity involves nominal subjects, these have to be overt on the first mention, if only because the speaker considers the descriptive properties of the noun relevant to define the class of entities. Consider the following sentences (see Borik & Espinal 2015, 2018 for a description of the special syntactic and semantic requisites of singular generic noun phrases):

(74) a. Los lobos cazan de noche.
         the wolves hunt by night
      'Wolves hunt by night'
      b. El lobo caza de noche.
         the wolf hunts by night
      'The wolf hunts by night'

These sentences allow both a generic and a specific reading (particular wolves, or a particular wolf). Importantly, in a subsequent sentence the null subject can be used without losing the generic interpretation. Imagine we continue the narration with the following example:

(75) a. ø se ocultan   entre los árboles y ø saltan sobre la víctima.
        ø SE hide   among the trees and ø jump on the victim
      'They hide among the trees and they jump on the victim'
      b. ø se oculta   entre los árboles y ø salta sobre la víctima.
        ø SE hides   among the trees and ø jumps on the victim
      'It hides among the trees and it jumps on the victim'

Both singular and plural generics can easily be taken as referents by null subject pronouns. Under this light, it is clear that Spanish does not have any ban on null generic subjects, or null subjects being interpreted as generics –depending on the analysis one wants to make about these noun phrases–.

Another relevant example is so-called generic 2sg form (Gili Gaya 1943, Kany 1969, Enríquez 1984, Seco 1989, Kitawa & Lehrer 1990, Hidalgo 1996-1997, Serrano & Aijón Oliva 2012, Aijón Oliva & Serrano 2013, Serrano 2013), which has been described as an impersonalising strategy or a strategy to defocalise the speaker in a statement that he wants to generalise to all participants. The following sentence, next to the available reading where the speaker makes reference to the specific addressee in the speech situation, allows a generic reading equivalent to 'anyone'.

(76) Nunca   ø vienes a una fiesta sin   traer nada.
        never   ø comes to a   party without   bringing nothing

'You never come to a party without bringing anything' or 'One does not come to a party without bringing anything'

There are cases where the 2pl adopts the same generic interpretation (Aijón Oliva, p.c.):

(77) Cuando ø te peleas con un amigo, ø os vais a tomar algo y en paz.
      when   ø you fight with a friend, ø you go to have something and in peace
      'When you have a fight with a friend, the two of you go to have a drink, and problem solved'

Like *uno* 'one', the generic interpretation requires some genericity inductors in the context. What is relevant from this perspective is that both the null pronoun and the overt pronoun (for the 2sg) are allowed in the generic interpretation, without any ban on null subjects in this context.

(78) Si {tú / ø} te llamas   Hermenegildo, {tú / ø} no te ríes de los demás.
      if you / ø you call.2sg Hermenegildo, you / ø not you laugh.2sg from the others
      'If you are called Hermenegildo, you don't make fun of others'

In conclusion: there is no conclusive evidence that Spanish null subjects cannot be generic, and in fact there are contexts which suggest that this possibility is open.

Moving now to the so-called arbitrary 3pl form (Gili Gaya 1943, Du Bois 1980, Alarcos 1994, Haverkate 1994, de Miguel 1999, Fernández Soriano & Táboas Baylín 1999, RAE & ASALE 2009: §41.9e, Posio 2015, 2017; Silva-Corvalán & Enrique-Arias 2017, Serrano 2018, 2025; Aijón Oliva 2020, among others), in such contexts most Spanish varieties have a ban on overt subjects for the interpretation.

(79) a. ø   dicen   que ø te   has   casado.
         ø   say.3pl that ø you have.2sg   married
      'They say that you got married'
      b. Ellos   dicen   que ø te   has   casado.
         they   say.3pl that ø you have.2sg   married
      'They say that you got married'

The (a) sentence above allows an arbitrary reading where the speaker does not know or does not want to reveal the identity of the specific referents that gave him that piece of information. In accordance to the arbitrary reading, the plural is not semantically active and the form does not entail that there is more than one person that says that the addressee got married: it might be one, or several, with the correct interpretation being that of an existential (there is at least one). This sentence, of course, in the appropriate context also allows a properly referential reading where the subject identifies a salient group of individuals, which in that case cannot be one single person.

In contrast, the (b) sentence, with an overt pronominal subject, loses the arbitrary reading and is restricted to the proper referential interpretation where a particular subject, that must be semantically plural, is the subject of the clause. Therefore, it is clear that in this construction, the arbitrary reading is only possible with null subjects, and gets blocked with overt ones (see, however, §4.2.3 for varieties where the arbitrary reading stays with an overt pronominal subject).

Some facts support the analytical possibility that in this case, in contrast to generic *you* or *uno*, one is dealing with a special type of subject, whose semantics is already arbitrary, and not with an interpretation assigned to a pronoun that can be interpreted in other ways. In particular, note that perfective verbal forms do not automatically block the arbitrary interpretation (de Miguel 1992). When the subject is a bona fide external argument, as in transitive clauses and agentive verbs, the null subject can get an arbitrary interpretation without problems:

(80) a. ø llamaron   a la puerta.
         ø knocked.pfv.3pl   at the door
     'Someone knocked at the door'
     b. ø tosieron   para que el ponente se callara.
        ø coughed.pfv.3pl so   that the speaker SE got.silent
     'Someone coughed so that the speaker would shut up'

De Miguel (1992) noticed that the arbitrary interpretation interacts with argument structure: specifically, if the subject is coming from an internal argument position, as one assumes is the case of an unaccusative verb, the arbitrary reading is blocked both in imperfective and perfective contexts. The following two sentences cannot be interpreted as generic for this reason:

(81) a. ø nacieron   en ese hospital.
         ø were.born.pfv.3pl   in that hospital
     'They were born in that hospital', not 'Someone was born in that hospital'
     b. ø mueren   en la habitación de al lado.
        ø die.3pl   in the room of at-the side
     'They are dying in the room next door', not 'Someone is dying in the room next door'

However, some verbs that are generally analysed as unaccusative seem to allow the arbitrary reading of the 3pl subject without problems. Imagine that I had a break in during the night. Not knowing whether one or several people broke in, and of course not knowing their identity, I can describe the situation to the police as follows:

(82) ø entraron   por la ventana.
     ø entered.pfv.3pl   through the window
     'They came in through the window'

In that sentence, the interpretation is clearly arbitrary: I know there was at least one person that broke in, but I do not know whether there were others, or their identity.

Be it as it may, I want to make it clear that the analysis of this contrast is orthogonal to our purposes. What is relevant is that, unlike the generic readings, the arbitrary interpretation can be obtained irrespective of the presence of inductors in the clause, which at least opens up the possibility that it is the manifestation of a special type of pronoun. See, in this regard, also the notion of arbitrary PRO as a special type of empty subject, presented in §3.2.2: as in the case of arbitrary PRO the 3pl null subjects are restricted to an animate interpretation. The following sentences, where a predicate that is not compatible with animate subjects is selected, do not allow their subjects to receive an arbitrary reading:

(83) a. ø contienen   plomo.
       ø contain.3pl   lead
   'They contain led'
   b. ø brillan   en la oscuridad.
       ø shine.3pl   in the dark
   'They shine in the dark'
   c. ø hacen la fotosíntesis.
       ø do   the photosynthesis
   'They do photosynthesis'

2.2.5. Nominal subjects with common nouns

So far, I have focused on overt vs. null pronominal subjects, or their interaction with proper names. The case of non-pronominal subjects is more complex, given that the common noun introduces sets of descriptive properties that may introduce additional lexical relations with each other, something that might be used to overcome the general condition that overt subjects trigger some form of contrast in discourse.

Let us start with the simplest case, which is illustrated in (84):

(84) Una niña entró en la tienda.   ø tenía pelo negro.
     a   girl   entered in the shop.   ø had black hair
     'A girl entered the shop. She had black hair'

Assuming that this is the start of a narration and there is no previous background, the natural interpretation of the null subject in the sentence is as corefering to the girl that has just been presented. In this context, an overt subject produces an effect of pragmatic infelicity (unless the pronoun is focalised; see §2.3.2 for the interaction with focus and what Mayol 2010 calls 'weak contrast').

(85) ??Una   niña entró en la tienda.   Ella tenía pelo negro.
      a   girl   entered in the shop.   she had black hair
     'A girl entered the shop. She had black hair'

Similarly, when there are already two nouns introduced in the previous narration, the overt subject might be used to clarify the particular referent used, if the gender and number of each participant is different, or simply to switch reference to the one of the two that was not perceived as the most salient (see §2.3.1 and §2.3.3 below):

(86) Una niña vio a un niño en la calle.   {Ella / Él} tenía el pelo negro.
     a   girl saw DOM a boy in the street.   she / he   had the hair black
     'A girl saw a boy in the street. {She / He} had black hair'

So far, the general notion of associating some kind of contrast to overt pronouns and continuation of the most salient referent to null pronouns seems to be appliable also to these cases. The parallelism with pronouns, however, dissolves when one considers cases like (97):

(87) El perro de Juan no encontraba su casa. {El animal / ??Él} tenía sed.
     the dog of Juan not found his house.   The animal / he   had thirst
     'Juan's dog couldn't find his house. The animal was thirsty'

While the pronominal overt subject is not felicitous, a noun phrase that refers again to the dog, provided that it uses a different lexical noun, does not trigger the contrastive effect. Notice that the lexical noun must be different, as the following sentence is not completely natural:

(88)   El perro de Juan no encontraba su casa. El perro tenía sed.
         the dog of Juan not found his house.   the dog had thirst
         'Juan's dog couldn't find his house. The dog was thirsty'

Unless the second mention of *perro* 'dog' refers to some other dog distinct from Juan's dog, the sentence is not natural.

What seems to underlie the difference between overt pronoun subjects and overt noun subjects is that the latter, but not the former, contain descriptions of kinds and individuals through the selection of lexical nouns. Lexical nouns are predicates whose properties are used to pick the referents when combined with quantifiers and determiners, but pronouns lack any descriptive property.

The presence of a lexical noun avoids the contrastive effect in two, perhaps related, ways. First, the descriptive properties allow lexical nouns to establish semantic taxonomical relations between them. The overt subject may, therefore, add properties to the description of the referent that are considered informative per se, so that the overt subject is not felt as redundant even if it picks the only referent available at that point in the discourse. This is illustrated with the following example, where the second subject is a hyponym of the first subject, precising the types of animals that the text is about.

(89)   Los animales del bosque tenían miedo. Lobos, ciervos y cuervos temían al
         the animals of-the forest had fear.   Wolves, deers and crows feared the
         cazador.
         huntsman
         'The forest animals were afraid. Wolves, deers and crows feared the huntsman'

In this example the second subject lists the animals that inhabited that particular forest, which is an expansion of the descriptive meaning of the previous subject, which refers to the same set of animals.

Another way in which the content of the lexical noun overcomes the contrastive effect is when the choice of elements by the speaker is used to convey the evaluative opinion that the speaker has about the referent, or any other type of non-truth conditional meaning. In the example of the lost dog above, the second subject is a hyperonym of the first (*animal > dog*), so arguably the second subject does not provide any more information to what the first subject provided. It, however, has the role of clarifying the conceptualisation of the situation that the speaker has chosen in the utterance: through the lexical choices available, the speaker decides how the external reality that is being narrated will be presented, selecting aspects of it that are highlighted over others that could equally have been chosen. Note that the sentence becomes even more natural if an evaluative element, such as a diminutive or a non-propositional modifier (Potts 2005) is added:

(90)   a. El perro de Juan no encontraba su casa. El animal-ito tenía sed.
              the dog of Juan not found his house.   the animal-dim had thirst
            'Juan's dog couldn't find his house. The little dog was thirsty'

    b. El perro de Juan no encontraba su casa. El pobre animal tenía sed.
       the dog of Juan not found his house.   the poor animal had thirst
    'Juan's dog couldn't find his house. The poor animal was thirsty'

This situation has two immediate consequences for the theoretical analysis of null subjects. The first one is that it strongly suggests that the contrast requirement on overt subjects is more the result of a pragmatic effect than a purely grammatical condition. Under the light of the behaviour of overt lexical nouns, pronouns are special because they do not introduce much beyond reference to a particular entity; using them in a context cannot be justified in itself by the descriptive or evaluative meaning that they introduce, so speakers that find an overt pronominal subject in a context where null is possible deduce that their presence must be due to some (marked) information structure effect (see, however, §2.3.4 below for the use of pronouns to convey interpersonal relations, which may be seen as a different manifestation of non-truth conditional meaning).

The second consequence is that contrast is not the only notion that is involved in the presence of overt subjects. The cases that we have just reviewed strongly suggest that an overarching principle in choosing how to express a subject is the way in which the speaker wishes to conceptualise the content of the conversation, and its relation to it. We will see that several approaches go beyond the notion of contrast, however this is represented, and emphasise these aspects of pronominal use (§2.3.4).

Let us now end the discussion of the different types of subjects, and try to be more precise about the discourse properties of the null vs. overt subject opposition.

2.3. Discourse properties

One of the most discussed descriptive issues in the grammar of null subjects in Spanish is what type of discourse effect licenses the proper use of overt subject pronouns. The underlying assumption here is the one that derives the Avoid Pronoun principle (remember §2.2.2 above), namely that null subjects have a 'neutral' effect and the use of the overt subject pronoun triggers an extra discourse effect.

The broad characterisation of the effect that overt subjects have in the discourse is the notion of contrast (Montes 1986, Bentivoglio 1987, Alarcos Llorach 1994, Lu 1997, Fernández Soriano 1999, Silva Corvalán 2003, Butt & Benjamin 2004, among many others), and indeed that is the preliminary notion that we have used so far. However, there is general consensus that this notion is too vague and needs to be further specified in order to become a useful principle that is descriptively adequate (Luján 1999, Posio 2012, Jiménez Fernández 2016, Martínez Orozco 2023).

2.3.1. Contrast as disjoint reference

In order to determine what is actually meant by 'contrast', let us start with the simplest type of situation. Given the fact that 1st and 2nd person participants are automatically activated by the speech situation, in this section and the following ones we will concentrate only on 3rd person animate subjects.

Imagine that the absolute start of a discourse is the following sentence.

(91) Marta ha atacado   a   Juana.
      Marta has attacked   DOM   Juana
      'Marta has attacked Juan'

The next sentence in the narration uses a null subject:

(92) ø   había cometido un error y eso produjo el enfrentamiento.
     ø   had   committed a mistake and that produced the confrontation
     'She had made a mistake and that produced the confrontation'

The default interpretation of the null subject is as coreferential with the subject of the previous sentence, that is, the sentence is interpreted as meaning 'She [Marta] had made a mistake', not as 'She [Juana] had made a mistake' (even if, via world knowledge, we expect that reason of the attack is more likely that Juana had made a mistake). The general observation, which will be nuanced below, is that in Spanish the reference of the null subject of a following sentence is by default to the subject of the previous sentence in the discourse (Silva-Corvalán 1982, Montalbetti 1984, Luján 1999, Otheguy & Zentella 2012).

Imagine, in contrast, that one wishes to say that it was Juan who made the mistake. In that case, the sentence above is at least not felicitous and one would rather go for an overt subject, as follows:

(93) Ella   había cometido un error y eso produjo el enfrentamiento.
     she   had   committed a mistake and that produced the confrontation
     'She [Juana] had made a mistake and that produced the confrontation'

Luján (1999) characterises the situation as follows: in Spanish, all things being equal, the null subject in subsequent sentences is coreferential to the subject of the preceding sentences, whatever it is. Use of an overt subject is required when the reference of the subject is disjoint with the subject of the previous sentence. Therefore, in the previous example, even if *ella* 'she' could in principle refer to either Marta or Juana, the overt pronoun triggers a disjointness effect (also called sometimes 'obviation effect') and the referent that was not the subject of the previous sentence is picked.

From a more theoretical perspective, the notions that have been used in order to formally characterise this opposition have normally been the notions of Givenness and Accessibility (see Ariel 1990, 2008; Gundel, Hedgerg & Zacharski 1993, Taboada 2005). Givenness is taken as a topic-related notion which referents that have already been activated in the communicative situation have, making them stand at the centre of attention of both interlocutors: that is, a referent is given in a sentence if that referent has already been previously mentioned in the previous text and the current state of the discourse puts it in centre stage. Accessibility is the property that referents which are salient in the communicative situation, and therefore easier to identify for both interlocutors, have. According to these theories, null subjects are associated to higher degrees of Givenness and Accessibility than overt subjects. Coreference is a manifestation that the speaker wants to keep talking about the most accessible or already given referent, while disjoint reference is interpreted as the speaker wanting to talk about a less accessible referent or one which did not have the highest degree of givenness among the available referents in the previous sentences.

Even though this characterisation is quite solid, there are three precisions that must be immediately made.

First of all, it is unclear whether the disjointness principle applies to subjects or, rather, to topics. The notion of Givenness, in fact, is customarily associated to topics. In fact, Jiménez-Fernández (2016), Frascarelli & Jiménez-Fernández (2019) and Frascarelli & Carella (2024) argue that the disjointness applies at the level of topics, not of subjects. Specifically assuming Frascarelli & Hinterhölzl's (2007) taxonomy of

topics, these authors associate null subjects in Spanish with syntactic constituents that keep the aboutness topic –what the sentence is actually about– unmodified with respect to the previous discourse. In contrast, an overt subject pronoun is a particular instance of a constituent that shifts the aboutness topic, in practice making the sentence talk about some issue that is different from the previous context. An argument in favour of this approach is that post-verbal overt subjects in Spanish do not necessarily introduce disjoint reference, as we will see. For instance, take the following sentence:

(94) Marta, piensa ella, aprobará las oposiciones.
       Marta, thinks she, will.pass the exams
       'Marta will pass the civil service exams, according to what she thinks'

In the previous sentence it is possible, but not compulsory, to assign the overt subject ella 'she' a disjoint reference from Marta. It is equally possible to make the overt subject coreferential to Marta, which is unexpected in principle in the characterisation of overt subjects that has been presented so far. From Frascarelli and Jiménez-Fernández' (2019) perspective, in contrast, this result is completely expected: being post-verbal, the overt pronoun may be in a subject position, but not in the right topic position, which is always pre-verbal in Spanish, and as such it will not shift the aboutness topic.

On the other hand, when both an overt subject and a topic co-occur in the same sentence, it seems that a subsequent null subject can be coreferential with the subject, not with the topic. The following sentence is adapted from the Italian original from Rizzi (2018):

(95) A María, Marta le escribía frecuentemente cuando ø estaba en Alemania.
       to María, Marta her wrote frequently   when   ø was in Germany
       'To María, Marta used to write frequently when she was in Germany'

As the experimental results for Italian showed, even though the topic can be taken as the referent of the null subject ('María was in Germany'), the subject is also available ('Marta was in Germany'), showing that there is no clear bias towards the topic when it is made distinct from the subject –although the experimental results show that this type of context diminishes the bias towards subject-coreference–. Ultimately, the underlying problem is the question of what relation overt subjects establish with topics in null subject languages, which we will discuss in §6 below.

The second precision that must be made with respect to the simple coreference / disjoint reference explanation of the alternation between null and overt subjects is that it might be in fact a particular instance of a broader principle, which is that null subjects need to have their reference controlled –in some sense– by a distinct element in discourse. Montalbetti (1984) discusses a particular context where, generally, null subjects are virtually compulsory, which is cases where the subject acts as a variable controlled by a quantifier.

(96) Nadie piensa que   ø va a ganar la lotería.
       nobody thinks that   ø   goes to win the lottery
       'Nobody thinks that he will win the lottery'

In contrast to inter-sentential contexts (remember §2.2 above), null subjects can be linked to non-specific pronouns like *nadie* 'nobody' provided that they act as variables that co-vary with the meaning of the pronoun. The sentence above allows for a reading

where the null subject triggers the interpretation that for no person x, x thinks that x will win the lottery (in other words, that nobody expects to win the lottery). This variable reading is possible next to a second interpretation that is much less salient in context, namely that nobody expects a particular referent y, not mentioned in the sentence, to win the lottery. The following exchange provides a good context for the second reading.

(97) Speaker A: ¿Qué piensan en Estocolmo de Murakami?
                   what think.3pl in Stockholm of Murakami?
                   'What do they think of Murakami in Stockholm?'
      Speaker B: Nadie piensa que ø va a ganar el Nobel.
                   nobody thinks that ø goes to win the Nobel
                   'Nobody thinks that he will win the Nobel prize'

As noted by Montalbetti (1984), an overt subject blocks the variable reading and forces as interpretation where the overt subject of the subordinate must pick a specific referent, like Murakami.

(98) Nadie piensa que él va a ganar el Nobel.
      Nobody thinks that he goes to win the Nobel
      'Nobody thinks that he will win the Nobel prize'

It is important, in order to get the contrast, that the overt subject does not carry any focalisation marking, not even an emphatic stress. If that is avoided, it is clear that the sentence above cannot mean 'no person x thinks that x will win the Nobel prize', and the overt pronoun must introduce its own referent.

Montalbetti (1984) proposes that this is the effect of a constraint which he labels 'Overt Pronoun Constraint', and which is a manifestation of the general Avoid Pronoun principle in null subject languages: the interpretations of the overt pronoun in terms of which semantic types they can correspond to are always more constrained than the equivalent null version.

The potential observation that what makes null subjects special, putting together the coreferential use and the variable use, is that they require their reference to be controlled by a different element has theoretical consequences for the analysis of null subjects, which we will discuss in §5 and §6.

The third and final remark that the disjointness theory needs is that it is not completely clear that Spanish will always treat null subjects as coreferential with the subject (or topic) of the previous discourse. Results from Alonso-Ovalle, Fernández-Solera, Frazier & Clifton (2002) and Leonetti Escandell & Torregrossa (2024) converge in the observation that Spanish allows object coreference to a higher degree than other null subject languages, like Greek and Italian. The following sentence is taken from Leonetti Escandell & Torregrossa (2024: example (17)):

(99) El portero   reconoció   al   cartero mientras ø abría la puerta.
      the gatekeeper   recognised DOM.the   mailman while ø opened the door
      'The gatekeeper recognised the mailman while he was opening the door'

The authors note that both the gatekeeper and the mailman were equally available as referents for the null subject (thus, both interpretations 'the gatekeeper was opening the door' and 'the mailman was opening the door' were licensed), and correlatively the overt

pronoun version also showed no strong bias either for either referent. Both Greek and Italian showed a stronger bias towards the subject 'the gatekeeper' with the null pronoun.

Their explanation, again, relates to topic-hood: they suggest that what makes Spanish special with respect to both Greek and Italian is the existence of Differential Object Marking, which in the relevant sentences marks the object. They offer the explanation that DOM may have as one of their functions to mark the object as a discourse topic. If speakers choose to interpret the object as topic by virtue of its DOM, then its referent will be as accessible as a preverbal subject, and –assuming that what counts in Spanish is not grammatical function but informative status– the data would follow.

Notice also that it is easy to force a non-subject coreference of a null subject by just invoking some aspects of world knowledge. If the preference for subject coreference was a grammatical principle or constraint, we would not expect the world knowledge of speakers to favour a non-subject coreference in a natural way: the sentences would require a lot of pragmatic accommodation where the world knowledge, and not the coreference, would be modified. The following sentence shows one of the many conceivable cases where world knowledge makes the null subject co-refer with an object.

(100) El agua dañó   la mesa porque ø no tenía protección.
      the water damaged   the table because ø not had protection
      'The water damaged the table because it had no protection'

Here, the natural interpretation is that the null subject refers to the table, not to the water, and the obvious reason is that, by world knowledge, it makes more sense to interpret 'not having protection' as predicated from the table than from the water. The sentence is completely natural in this reading, showing that the bias towards subject or topic coreference is only a tendency that can easily be ignored.

2.3.2. Contrast as a focal set of alternatives

The previous remarks show that the opposition between coreference and disjoint reference cannot be the only discursive factor associated to the null subject vs. overt subject distinction. Other theories and approaches have actually found effects that are related to foci.

Remember from the previous discussion that null subjects are generally required if one wishes to obtain the variable reading in some contexts, with contrasts like the following:

(101) a. Nadie piensa   que   ø va a ganar la lotería.
        nobody thinks that   ø goes to win the lottery
    'Nobody thinks that someone will win the lottery' or 'No person x thinks that x will win the lottery'
    b. Nadie piensa   que   él va a ganar la lotería.
        nobody thinks that   he goes to win the lottery
    'Nobody thinks that someone will win the lottery', not *'No person x thinks that x will win the lottery'

We also noted that the contrast crucially requires the overt subject not to carry any emphatic stress. If the overt subject carries emphatic stress, or any grammatical marker that focalises it, as in the previous sentences, the variable reading is again available.

(102) a. Nadie piensa   que   ÉL   va a ganar la lotería.
      nobody thinks that   HE   goes to win the lottery
      'Nobody thinks that someone will win the lottery' or 'No person x thinks that x will win the lottery'
    b. Nadie piensa   que   él mismo   va a ganar la lotería.
      nobody thinks that   he himself goes to win the lottery
      'Nobody thinks that someone will win the lottery' or 'No person x thinks that x will win the lottery'
    c. Nadie piensa   que   solo él   va a ganar la lotería.
      nobody thinks that   only he goes to win the lottery
      'Nobody thinks that someone will win the lottery' or 'No person x thinks that x will win the lottery'
    d. Nadie piensa   que   justamente él va a ganar la lotería.
      nobody thinks that   precisely he   goes to win the lottery
      'Nobody thinks that someone will win the lottery' or 'No person x thinks that x will win the lottery'

This means that in these contexts some different discourse principle, which does not involve disjoint reference, must be applying. The obvious answer given in part of the literature is focalisation (Givón 1983, Ariel 1990, Gundel 1999, Fernández-Soriano 1999, Jiménez-Fernández 2016). The main idea is that a focus (see Fábregas 2016 for an overview) always involves taking elements from an implicit or explicit set of alternatives that are available in the communicative situation (Rooth 1985). Thus, when the speaker uses the overt pronouns in the context above, he or she is picking whichever referent covaries with the quantifier from a broader set of alternatives that lie in the background of the discourse –specifically, anyone that plays the lottery–.

Fernández-Soriano (1999: 1226), in fact, notices that null subjects cannot be focalised, and therefore that any marker of focalisation requires the subject to be overt. Information focus, which provides the answer to a question (taken from the set of conceivable alternatives that the context allows) is incompatible with a null subject.

(103) Speaker A: ¿Quién ha dicho eso?
          who   has said that?
          'Who has said that?'
    Speaker B: Ha sido   {él / Ø}.
          has been   he / ø
          'It's been him'

Note, additionally, that in the example above it is not possible to invoke disjoint reference to explain the presence of the overt pronoun, given that no other 3rd person entity has been activated yet. Additionally, focus markers of any type require the subject to be overt.

(104) a. Solo {yo / *ø} lo sé.
      only I   ø   it know.1sg
    'Only I know it'

    b. {Yo / *ø} mismo lo haré.
        I   ø   myself it will.do
   'I will do it myself'
    c. Justamente {tú / *ø} deberías callarte.
       precisely   you / ø should be.quiet
   'You, of all people, should be quiet'
    d. Incluso {ella / *ø} puede entenderlo.
       even   her / ø   can   understand.it
   'Even she can understand it'

It is also trivially true that emphatic stress as a way to focalise an element can only be applied to elements that are not null.

The focus interpretation is a more precise way to capture the notions of 'contrast' and 'emphasis' that are generally invoked when talking about Spanish overt subjects. Note, however, that focalisation can be interpreted in different ways: to begin with, it can refer to information focus or to mere contrastive focus, like the examples above in (104), which pick the subject from a broader set of alternatives without necessarily answering any implicit or explicit question.

2.3.3. Exhaustiveness

Overt subjects can be focalised –picking one element from a set of alternatives– and not be exhaustive, where exhaustiveness additionally makes the claim that the elements picked from the set of alternatives are the only ones in context that truthfully satisfy the predicate's description. Consider as an illustration the following context: during a conference, some participants start feeling sick, and a doctor is called in to test those participants for COVID, on the spot. After testing the first participant, the doctor says:

(105) Él tiene COVID.
     he has COVID

Clearly, the doctor is not implying at that point that that participant is the only one that has COVID within the set. The use of the overt pronoun is licensed by focus, in the sense that the doctor has taken that participant from the set of alternatives –the other participants–, without claiming that he is the only one that has COVID at that point.

Another relevant example is the following, which shows that, when the overt subject gets a focus reading licensed in a question-answer pair the exhaustive reading is not forced. Imagine that we are in a meeting and someone needs a pen to take notes. The person asks whether someone in the room has a pen he can use. A natural answer to this question is given as follows:

(106) Yo   tengo   un bolígrafo.
     I   have.1sg   a   pen
     'I have a pen'

It is clear that the person answering is not trying to imply that only he has a pen, or even that as far as he knows he is the only one with a pen. The natural expectation is that most people in the room will have a pen; therefore, the use of the overt pronoun here is licensed because the subject provides an answer, from the set of alternatives, to the question posed, not because that is the only possible answer.

That said, exhaustive focus is also possible in other contexts, also in preverbal position, when there is no informative focus context. Imagine the following situation: I enter a room where a meeting is supposed to take place; even though the meeting involves four people, only one more person is already in the room. In this context, the following sentence, with a null subject is appropriate:

(107) ø   ya   estoy aquí.
     ø   already am   here
     'I am already here'

In contrast, the equivalent with an overt pronominal subject would not be felicitous.

(108) Yo ya   estoy aquí.
     I   already   am   here
     'I am already here'.

The reason is that the sentence above strongly requires exhaustive focus, which does not fit the context described: I am not the only person from the set of alternatives that is in the room, as I am talking to someone that is also there. In contrast, the sentence would be perfect if I arrive to an empty room and phone one of the other three people that were supposed to be there, to (truthfully, in that case) tell them that I am the only one in the room.

The conditions which trigger the exhaustive focus interpretation are not described in the literature, and I will simply make a few remarks as a speculation. It seems that first person overt subjects have a strong tendency to trigger exhaustive interpretations. In the conference context, where a COVID outbreak happens, a sentence like the following seems more natural in a context where the speaker wishes to say, that as far as he knows, he is the only one that has the virus:

(109) Yo tengo COVID.
     I   have   COVID
     'I (only I) have COVID'

This effect seems to me to extend also to 2nd person pronouns. Similarly, a 1st person null subject in the following sentence can be interpreted as an open invitation to join someone at the movies:

(110) ø   voy   al cine esta tarde.
     ø   go.1sg   to-the cinema this evening
     'I am going to the movies this evening'

This is not the case with the overt pronoun version, which would be a weird way of inviting someone to join you, as expected if an exhaustive focus reading is preferred:

(111) Yo   voy   al cine esta tarde.
     I   go.1sg   to-the cinema this evening
     'I am going to the movies this evening'

Similarly, with 2nd person pronouns, the null subject version is compatible with the idea that someone else –like the speaker– will help the addressee in the task, but not the overt pronoun version–.

(112) a. Esta tarde   ø   vas   a pasear.
          this afternoon   go.2sg   to take.a.walk
     'This afternoon you will take a walk'
     b. Esta tarde   tú   vas   a pasear.
         this afternoon   you   go.2sg   to take.a.walk
     'This afternoon you will take a walk'

The third person pronoun does not trigger the same effect. In the following two sentences, both are compatible with the interpretation where the speaker informs the addressee that someone else will go to the movies as a way of suggesting that the addressee could join him.

(113) a. ø   va   al cine esta tarde.
          ø   go.3sg   to-the cinema this evening
     'He is going to the movies this evening'
     b. Él va   al cine esta tarde.
         he go.3sg   to-the cinema this evening
     'He is going to the movies this evening'

Notice in particular that there is a contrast between participant pronouns and third person pronouns as soon as an explicit set of other entities is introduced: a phrase like *entre otros* 'in addition to other' is more natural with a 3rd person overt pronoun than with the participant ones.

(114) a. ??Entre otros, yo tengo COVID.
              among others, I have COVID
     Intended: 'I, in addition to others, have COVID'
     b. ??Entre otros, tú tienes COVID.
              among others, you have COVID
     Intended: 'In addition to others, you have COVID'
     c. Entre otros, él tiene COVID.
         among others, he has COVID
     'In addition to others, he has COVID'

Perhaps the fact, which has already been mentioned, that 1st and 2nd person referents are automatically activated by the speech act has something to do with this fact: given that, in some sense, the speaker and the addressee are already taking out of a set of alternatives (at least, the two members of the speech act, any of which could have adopted the other role), making the pronoun overt might require an additional interpretation that is taken as exhaustive focus.

Note also that most cases given in the literature of so-called contrastive topic, where it is explicitly interpreted that the subject is the only entity in the context that satisfies the predicate description, involve 1st or 2nd person pronouns:

(115) Nosotros comemos ahora.
         we   eat   now

'WE eat now (and I don't know about you or others)'

Be it as it may, the general idea is that the notion of emphasis or contrast, even when operationalised as focalisation or contrastive topichood, includes different types of readings, which may or may not trigger exhaustive interpretations that exclude other potential members from the set of alternatives. Mayol (2010) in fact differentiates between three degrees of contrast that are relevant in this sense. The strongest type of disjoint reference related to contrast is 'double contrast'. That is the one where the use of the overt pronouns is used in a context where one wishes to predicate different actions, states or property from two distinct referents. Within the speech situation, each one of the descriptions are interpreted as being opposite in some sense.

Cases where the pronoun may be used to disambiguate between potential referents in the speech situation because their gender or number is different fall in this class. For instance, in an example like the following, the overt 3sg subject may be used simply to contrast between the two potential referents to specify which one of them had an ice cream.

(116) a. Una niña vio a un niño en la calle.   Ella tenía un helado.
          a   girl saw DOM a boy in the street.   she had an ice-cream
       'A girl saw a boy in the street. She had an ice-cream'
     b. Una niña vio a un niño en la calle.   Él tenía un helado.
          a   girl saw DOM a boy in the street.   he had an ice-cream
       'A girl saw a boy in the street. He had an ice-cream'

However, double contrast also applies in cases where the overt pronoun is not enough to disambiguate between referents through its morphology. Remember our previous example where Marta had attacked Juana. The following sentence, in that context, illustrates double contrast.

(117) Ella ha sufrido una sanción, y ella ha tenido que ir al hospital.
      she has undergone a sanction, y she has had to go to.the hospital
      'She [Marta] has received a sanction, and she [Juana] had to go to hospital'

Note that the two pronouns can be identical, in the sense that the gender, number and person marking do not contribute to disambiguating between the referents. This is generally viewed as unproblematic, and orthogonal to the contrastive effect. First of all, as noted in many works (eg., Bosque & Gutiérrez-Rexach 2009), world knowledge and other aspects of the communicative situation will disambiguate the reference in almost all cases –for instance, the speaker may point towards Marta and Juana, respectively, at the same time that each pronoun is used–. What is relevant here is that the sentence above is perfectly grammatical, and in correspondence with the disjoint reference, the two overt subjects cannot be coreferential with each other. In fact, using a null subject in the second would automatically be interpreted as meaning that the same person got the sanction and was rushed to the hospital.

(118) Ella ha sufrido una sanción y ø ha tenido que ir al hospital.
      she has undergone a sanction, and ø has had to go to.the hospital
      'She [Juana] has received a sanction, and she [Juana] had to go to hospital'

At the same time, the sentence illustrates a particular notion of exhaustiveness that is frequent in the contexts that are sometimes described as 'contrastive topics': the narration defines a set of alternatives (Marta and Juana), and the use of the overt pronouns picks for each one of the sentences a different member from that set, in a way that within the context each one of them is the only referent that satisfies the predicate description.

According to Mayol (2010), the second type of contrast is implicit contrast. In this type of situation, there is no overt opposition between two referents, but the overt pronoun is used also to signal that the intended referent is different from a highly salient referent that has been previously activated, even if that referent is not mentioned in the sentence where the overt subject is used.

Imagine for instance the scenario depicted by Mayol (2010), where a little frog wishes to be friends with a big frog who refuses to be. In that context, the following sentence is felicitous:

(119) La ranita se pone a llorar porque   ø   se ha hecho daño
      the frogg-y SE gets to cry because ø   SE has made pain
      y además ella quería que las dos fueran amigas.
      and also she wanted that the two were friends
      'The little frog starts crying because she has hurt herself and, also, she wanted the two of them to be friends'

Note again that the disjoint reference account cannot explain the use of the overt subject in the third sentence: as the subject of the first is the little frog, the null subject in the second sentence is naturally interpreted as the same little frog. However, the third sentence displays an overt subject that is again coreferential with the little frog. The explanation offered by Mayol (2010) is that, here again, the overt subject is focalised in the sense that –from the set of alternatives consisting of on the two frogs in the story– she and only she had the desire to become friends with the other one. Again, in this context we can see an exhaustive focus reading, where as far as the little frog knows at that point she is the only one of the two that wants to become friends.

The lowest degree of contrast is what Mayol (2010) calls weak contrast, which in fact is a type of focus that is not necessarily exhaustive. Here, the speaker takes an element from an implicit set of alternatives, none of which has been made explicit in the communicative context. The use of the overt subject is licensed because the speaker leaves open the possibility that a contrast is established with other members of a set of alternatives, as entities that may become part of the context. In the words of Mayol, the speaker simply makes a claim about the actual referent of the overt pronoun, without explicitly saying whether the same predicate can apply or not to other referents that may become relevant in the communicative situation (2010: 2502). This is what seems to apply to the cases that have been noticed above, where –specially with 3rd person pronouns– the focalisation of a 3rd person subject does not explicitly exclude that other referents in the communicative situation have COVID.

2.3.4. Null and overt subjects as pragmatic strategies

The previous explanations that combine disjoint reference and some form of contrast through focalisation are considered enough in some grammatical traditions, but other – typically, more usage-based– approaches consider it unsatisfactory for several reasons.

First of all, in different studies (Enríquez 1984, Cameron 1992, Claes 2011), it has been shown that the distribution of overt subjects is uneven across person-number

combinations. The highest proportion of overt subjects vs. null subjects is found in the 1sg form (31,89% in Enríquez 1984, and 31% in Cameron 1992), followed by the 2sg (26,22% and 25%, respectively) and the 3rd person plural (14,12% and 8%, respectively). The data are remarkable for two reasons: first of all, the percentage inverts the usual proportion of subjects in corpora, where systematically the 3rd persons are the most attested ones. Second, the theories that we have discussed so far cannot predict this type of asymmetry: with respect to making the referent more clearly identifiable through disjoint reference, we would expect 3rd person pronouns to be those that most commonly are overt, given that in one utterance one may have more than one 3rd person referent, but only one speaker and one addressee. It is also unclear to what extent an account based on focalisation, sets of alternatives and exhaustivity could predict these facts, as those theories do not hardwire any asymmetry between participants within the set of alternatives and other types of referents.

Secondly, if the observations made above about 1st and 2nd person overt subjects typically triggering exhaustive focus are in the right line, sentences like the following are highly problematic:

(120) Yo creo que hay que respetar a todas las personas.
     I   think that must to respect DOM all the people
     'I think that one should show respect to everybody'

The person that utters that sentence is probably not wanting to imply that, as far as he knows, he is the only person in context that has this belief. This, in fact, is what Mayol (2010) would call 'weak contrast', in the sense that the speaker seems to be only leaving open the possibility that other people may have a different opinion. Note that it is even possible to suspend not only exhaustive focus, but also disjoint reference and possibly the set of alternative selection, with combinations like *yo creo* 'I believe', *yo pienso* 'I think', *yo sé* 'I know', *yo digo* 'I say', as in the following example.

(121) ø me encuentro bien en mi trabajo, y yo creo que   seguiré   en él.
     ø me   find.1sg well at my job,   and I believe that   will.continue.1sg
  in it
     'I feel fine at my job, and I believe that I will continue with it'

The overt subject appears in combination with the belief verb in the second sentence. Disjoint reference is obviously not obtained here, and if the reason why this subject is overt was focalisation, it is unclear why the speaker did not feel that it was necessary to mark as focalised the subject in the first sentence –which is null– to begin with.

In fact, and this is the third complication for the theories revised so far, it has been noted that different predicates display different rates of null vs. overt subjects in written corpora (Enríquez 1984, Bentivoglio 1987, Morales 1997, Hurtado 2005, Aijón Oliva & Serrano 2010, Posio 2012).

In these studies, the class of verbs that most frequently triggers overt subjects is the class of Propositional Attitude verbs (see Nelson 2019 for a recent semantic overview). Propositional Attitude verbs are those that denote the relation that individuals establish with propositional context, that is, with statements that have truth value. These verbs include verbs that denote ways of representing propositions in the mind of the subject (*know, think, believe, suppose, consider, imagine, learn*...) and verbs that denote the linguistic manifestation of those propositions (*say, state, deny, declare*...), among other relevant classes. In Enríquez (1984), these verbs are more likely to have an overt

pronominal subject than not when they are used to express an opinion or claim about the world (54,45% of all pronominal subjects are overt), and have a significant rate of overt subjects when they denote mental activities (28,17%), in contrast to verbs that express actions and events without a mental manifestation, like *run, do, speak, go*, where overt pronouns represents only 20%.

Again, if the notions that we manage to explain the contrast between null and overt subjects is disjoint reference and focalisation, there are no plausible reasons why speakers feel the need to focalise the subject when talking about propositional attitudes than when talking about other types of predicates. Other notions seem required.

In a series of works, an alternative set of concepts has been worked out for Spanish (Aijón Oliva 2019, 2025, Aijón Oliva & Serrano 2010, Serrano 2011, 2012, 2025; Serrano & Aijón Oliva 2011). Their proposal is that omission and overtness of subject pronouns is used to encode different ways of conceptualising the relation between the participants in the depicted event. The choice between null and overt subjects depends on the tension between two opposed forces: the degree of activation of the referent and its degree of informativity. Referents that are highly activated in the previous discourse, and therefore whose mention is less informative because it would not switch focus to another entity, are more likely to be null, and referents that convey a high degree of informativity are more likely to be overt. This can be viewed, in principle, as a different way of talking about the tension between givenness/accessibility and focalisation that has been reviewed so far, but the significant difference is that the notions have to be interpreted in an interactive framework, and the informativity that overt pronouns encode may not be simply switching attention to its referent, but adding additional entailments that conceptualise the communicative situation in precise ways. For instance, Aijón Oliva & Serrano (2010) argue that overt 1sg subjects are used to convey to the interlocutors that the speaker is being more subjective with respect to the propositional content expressed, in opposition to the same sentence with a null pronoun.

(123) a. ø creo que   iremos   al teatro.
         ø think that   will.go.1pl   to-the theater
     'I think that we will go to the theater'
      b. Yo   creo que   iremos   al teatro.
         I   think that   will.go.1pl   to-the theater
     'I think that we will go to the theater'

Overt subjects may, then, come with different informative contributions depending on the person-number combination. 1sg pronouns encode subjectivity when overt and 3rd person pronouns encode broader informativity notions. Ultimately, what makes 1sg and 2sg pronouns more likely to be overt is that, in contrast with 3rd person pronouns, their presence is informative to profile the communicative situation as more subjective or more focused on the addressee, which is a way to objectify it from the perspective of the speaker. Therefore, it is expected that the rate of overt pronouns varies from one person to the other. Moreover, it makes sense that 1sg pronouns are those that are more likely to be overt, as they will be used precisely when the speaker wants to signal that he or she is being subjective, transmitting his own opinion, his own view, etc., which are relevant notions within a communicative situation. The same view makes equally likely that verbs that are precisely encoding the attitude of subjects with respect to statements about reality are those that are more likely to carry overt subjects: these are precisely the predicates that, ultimately, encode the thoughts and opinions of a referent, and in them it is where the contrast between null and overt subjects is more informative.

With them, using null subjects would be a strategy to objectivise the opinion that the speaker is transmitting and the overt subject would signal a higher level of subjectivisation –the speaker wants to signal, in a sense, that that is his opinion, and he does not necessarily expect others to share it–.

The idea, then, is that speakers encode reality in ways that are adapted to the communicative situation, the relation with the interlocutor and the goals that the communication has, and not only null vs. overt subjects, but also the choice of pronouns when overt (Aijón Oliva 2019) are strategies that provide different conceptualisations.

The theory that null vs. overt subjects broadly encode different communicative strategies and eventually are used to conceptualise the communicative situation also makes the prediction that social factors will influence the rate of overt vs. null subjects, a result that is confirmed in for instance Aijón Oliva & Serrano (2010). Moreover, in further elaborations of the framework that incorporate Fauconnier's (1984) theory of mental spaces (Aijón Oliva 2013, 2017, 2019; Aijón Oliva & Serrano 2016, Serrano 2013, 2017, 2025), the same set of principles have been adopted to explain different ways of encoding non-specific subjects, generic subjects and pronouns in the object position.

In a series of articles, Posio (2011, 2012, 2013; see also Herbeck & Posio 2022) starts from similar views where salience of a referent and informativeness play a role at the initial stages, but emphasises that the higher rates of overt subject + verb combinations found in corpora cannot simply be explained as contexts where the subjectivising or focalising strategy is more likely to occur. He proposes that, perhaps starting from the likelihood that propositional attitude verbs take overt 1sg subjects, there is a process of entrenchment (Bybee 2010, Travis & Torres Cacoullos 2012) where the frequency of a combination fixes it as a sequence in the memory of speakers, which will then assign to them a pragmatic and communicative function as a block (*yo creo, yo pienso*...). Ultimately, this is what explains the higher percentage of overt subjects with some specific predicates in Posio's analysis.

This is not to say that speakers lack any pragmatic rule to determine whether a subject should be null or overt and simply reproduced already stored sequences: in Posio (2011) he notes that highly transitive verbs, whose direct object is affected, are less likely to appear with an overt subject than intransitive verbs without an object:

(124) a. ø ataqué a   mi vecino.
         ø attacked DOM   my neighbour
      'I attacked my neighbour'
      b. Yo   vivo en Madrid.
         I   live in Madrid
      'I live in Madrid'

He proposes that in such cases the usual salience / informativeness principles apply: highly transitive verbs are more likely to have the patient in focus, while this informative function is available for the subject in the case of intransitive predicates. Thus, the distribution of null vs. overt subjects also interacts with argument structure, in a broad sense.

The approach that proposes that null vs. overt subjects are strategies that encode different discourse situations, especially when they are participant pronouns, needs to be nuanced in ways that may constitute arguments in favour of the whole approach. Amaral & Schwenter (2005) (see also Limerick 2023) note that the broad notion of contrast and the specific notion of subjectivity can be encoded through non-subject

means, in which cases the strategy of using a 1sg overt subject is suspended. The following examples, where the expression that plays the contrastive / subjectivising role is highlighted, illustrate the relevant contexts.

(125) a. Cindy toma café con leche, pero <u>por mi parte</u>   ø prefiero café negro.
     Cindy takes coffee with milk, but on my part ø prefer.1sg coffee black
     'Cindy drinks coffee with milk, but in my case I prefer black coffee'
                                          [Amaral & Schwenter 2005: example (5')]
   b. Ella siempre quiere ir al cine. <u>Honestamente,</u> ø preferiría estar en casa.
     she always wants   go to.the movies. Frankly, ø prefer.1sg be at home
     'She always wants to go to the movies. Honestly, I would prefer to stay home'
                                          [Amaral & Schwenter 2005: example (6b)]
   c. Bueno, <u>en lo personal</u>, ø no soy muy religiosa pero…por lo que veo, la gente
     sí va bastante a la iglesia, aquí. [F30Mex]
     'Well, personally, I'm not very religious but…from what I see, people do go
     quite a bit to church, here'
                                          [Limerick 2023: example (10)]

Without the underlined expressions, the contexts are set as contrastive in the broad sense, so the null subjects are ungrammatical in them:

(126) a. *Cindy toma café con leche, pero__ø prefiero café negro.
     Cindy takes coffee with milk, but   ø prefer.1sg coffee black
     Intended: 'Cindy drinks coffee with milk, but I prefer black coffee'
   b. *Ella siempre quiere ir al cine. ø preferiría estar en casa.
     she always wants   go to.the movies. ø prefer.1sg be at home
     Intended: 'She always wants to go to the movies. I would prefer to stay home'
   c. ??Bueno, ø no soy muy religiosa pero…por lo que veo, la gente sí va bastante
     a la iglesia, aquí. [F30Mex]
     'Well, I'm not very religious but…from what I see, people do go quite a bit to
     church, here'

Notice that this contrast is not immediately obvious in a theory where the distribution of the null vs. overt subject is itself sensitive to whether the referent is contrastive or not. However, if the contrastive idea is only a particular reflection of different pragmatic strategies that speakers use to organise and conceptualise the relation between referents in a narration, their personal stance and the role of the addressee, this type of effect is excepted: the conditions on 'contrast', 'focalisation', 'salience', and so on do not apply to the specific pronouns as syntactic constituents, but to the whole utterance as an information unit. Once the focus is put on the whole utterance, and therefore the conditions of use of the pronouns are viewed as the effect of pragmatic interpretations more than as the result of strictly grammatical restrictions, it is in fact expected that the requisite of contrast is satisfied by a non-pronominal form, with grammatical results.

The way in which these expressions contribute to licensing contrast provides evidence for the claim that different pronouns are associated to different informative effects. It can be shown, as Amaral & Schwenter (2005) do, that the type of expression that licenses the null subject varies with the specific pronoun. For instance, they show that *honestamente* 'frankly' only licenses the null subject when it is 1st person:

(127) Ella siempre quiere ir al cine. *<u>Honestamente</u>, ø preferirían estar en casa.

she always wants   go to.the movies. Frankly, ø prefer.3pl be at home
Intended: 'She always wants to go to the movies. Honestly, they would prefer to stay home'

[Amaral & Schwenter 2005: example (7)]

This contrast is expected to the extent that the adverb allows by default the identification of the speaker, who is the only participant in a position to guarantee that what he is saying is true, but not of third person referents.

To conclude this section: the notion of contrast, which has been informally invoked to explain the distribution of null vs. overt pronominal subjects, has been interpreted as a condition on givenness vs. non-givenness, or a condition on non-focalised vs. focalised referents. While these proposals give account of most of the uses of the null vs. overt pronoun, they cannot explain the frequency asymmetries that are systematically found not only with respect to which pronouns are overt, but also which types of verbal predicates prefer them. This has triggered additional explanations, which focus on the pragmatics, and treat the alternation between null and overt subjects as different strategies in the conceptualisation of the communicative situation, with possible distinct effects depending on the specific person of the pronoun. In general, the results of this section suggest that the interpretative conditions on overt pronominal subjects should be treated more as pragmatic effects than as grammatical restrictions: in accordance with the Avoid Pronoun principle and Montalbetti's Overt Pronoun Constraint, syntax is blind to the interpretative effects and these act as filters on the syntactic outcome, which can be satisfied by the pronoun or by some other means.

2.4. Morphological properties

This section will discuss whether the lack of morphological contrast between two different person-number combinations influences in Spanish the availability of null subjects. The result will be that it probably does not, with only a couple of caveats; however, this section is necessary given the existence of the so-called Taraldsen's (1978) generalisation.

Taraldsen's Generalisation (also called the Rich Inflection Hypothesis) is a claim about the morphological properties of languages that allow null subjects: only languages with a rich inflectional system of subject-verb agreement can be null subject languages. It has clear antecedents in the pre-theoretical Greco-Latin grammatical tradition, as well as in some traditional works on Spanish grammar going back to Bello (1847) (see also Gili Gaya 1943, Fernández Ramírez 1951, Enríquez 1984). The underlying intuition, which allows both functionalist and formal explanations, is that the inflection displayed by the verb through agreement allows speakers to identify the reference of the subject without it having to be overt. In other words, inflection allows the recovery of a category that is not directly represented on the signal that speakers receive; in fact, it is still argued in the current literature that so-called Consistent null subject languages must have rich subject-verb agreement (see §4.1.3).

The problematic part of the generalisation is to determine what counts as 'rich', and this is the reason why we will revise the relevant facts for (Peninsular) Spanish in this section. Intuitively, one can say that Spanish has a rich verbal inflectional system, while English –which does not allow null subjects in the general case– has an impoverished inflectional system. As can be seen below, the present indicative in Spanish differentiates 6 forms –all person and number combinations– through the verbal endings, while English only makes one distinction that singles out the 3sg from the rest of the paradigm.

(128) 1sg	com-o	eat
2sg	com-e-s	eat
3sg	com-e	eat-s
1pl	com-e-mos	eat
2pl	com-é-is	eat
3pl	com-e-n	eat

Taraldsen's Generalisation capitalises in this contrast, and notes that unequivocally null subject languages –those that later on would be called Consistent null subject languages, such as Italian, Greek or Portuguese– differentiate between all relevant person-number combinations in the verbal inflection, at least in some tenses. Languages like English or –despite orthography– French lack sufficient overt morphological contrasts.

The generalisation triggers three types of questions. The first one is what type of property explains the correlation, which we will discuss in §8. The second one is whether 'rich' means that all pronominal forms must be differentiated in the paradigm, or whether it is possible to allow at least some degree of syncretism without ceasing to be a null subject language. The third one is whether the morphological contrasts license null subjects only when they are overt, or whether –provided that the distinction is made somewhere in the verbal system– it extends to occasional cases of syncretisms in some forms. We have no space to revise all the different answers that have been given to the second question here, and we refer the reader to Abraham (1993), Vainikka & Levy (1999), Huang (2000), Koeneman (2006), Tamburelli (2006), Koeneman & Zeijlstra (2014, 2019) and Neeleman & Szendroi (2023) for discussion –with the current consensus being that 'rich inflection' means that verbal inflection makes at least as many morphological distinctions as pronouns make in the same language–. The reader should also take into account that, even if Taraldsen's Generalisation turns out to be correct in some version, it cannot be the only factor that determines whether a language allows null subject. So-called Radical pro-drop languages (§4.1.4) allow null subjects (and objects) even though they systematically lack agreement (see Huang 1984, Speas 2004, Neeleman & Szendröi 2007).

Here we will focus on the third question, namely whether absence of morphological contrast in one tense ceases to license null subjects when the contrast is active in other tenses. If we take the present indicative, as we have seen, Spanish makes systematic 1st-2nd, 1st-3rd and 2nd-3rd distinction in both the singular and the plural. As expected by Taraldsen's Generalisation, null subjects are licensed also in these contexts, as we have seen.

Let us however focus on the contexts where Spanish does not make a distinction between 1sg and 3sg. These contexts are the imperfective indicative, the conditional and all tenses in subjunctive. As can be seen, in all these tenses there is no ending marking the 1sg and 3sg, in contrast with the other forms, which add an additional exponent that overtly marks the subject person-number combination.

(129)	Imperfective indicative	Conditional
1sg	cant-a-ba	cant-a-ría
2sg	cant-a-ba-s	cant-a-ría-s
3sg	cant-a-ba	cant-a-ría
1pl	cant-á-ba-mos	cant-a-ría-mos
2pl	cant-a-ba-is	cant-a-ría-is

3pl	cant-a-ba-n		cant-a-ría-n

(130)	Present subjunctive	Imperfective subjunctive	Future subjunctive
1sg	cant-e	cant-a-ra	cant-a-re
2sg	cant-e-s	cant-a-ra-s	cant-a-re-s
3sg	cant-e	cant-a-ra	cant-a-re
1pl	cant-e-mos	cant-á-ra-mos	cant-á-re-mos
2pl	cant-é-is	cant-a-ra-is	cant-a-re-is
3pl	cant-e-n	cant-a-ra-n	cant-a-re-n

The obvious question at this point is whether 1sg and 3sg overt subjects can be overt without triggering a contrastive interpretation (and the animate reading in the case of third person pronouns), as expected if the lack of verbal contrast ceases to license null subjects. If, on the other hand, the existence of some forms where the 1sg and the 3sg are morphologically distinct is enough to license null subjects across the board, we would expect overt subjects of this type to trigger a contrastive reading, just like in the other cases.

It is clear that in discourse contexts where there is only a salient accessible referent and the speaker does not wish to shift reference, a null subject is possible also with the non-contrastive forms of the verb. Assume that the following sentence is the absolute start of a narration:

(131) Estaba   en casa cuando llamaron a la puerta.
         was   at home when   knocked.3pl at the door
         'I / He was home when someone knocked at the door'

Admittedly, without more context the sentence is ambiguous, and one cannot know from the grammatical information provided whether the subject is the speaker or a third person participant. Precisely, this type of context would be the one that one would expect not to license a null subject if the correlation with rich inflection had a functionalist explanation: the whole point is that according to the functional story, null subjects are possible only to the extent that the overt morphological inflection supplies the necessary features to identify the referent. The previous sentence does not provide that information through inflection, and yet the null subject is perfectly grammatical.

Consider now contexts where one involves two or more participants. Imagine that a narration starts with the following sentence:

(132) Ayer   ø acompañé   a   mi hermano   al cine.
         yesterday ø accompanied DOM   my brother   to-the cinema
         'I accompanied my brother to the cinema yesterday'

This sentence introduces as participants in the narration two referents: the speaker and the brother. Imagine now the narration continues as follows:

(133) ø tenía un poco de alergia.
         ø had a bit   of allergy
         'I / he had a bit of an allergy'

While the verb inflection does not differentiate between the 1sg and the 3sg referents, both activated in the previous sentence, the tendency to identify null subjects

with the subject of the previous sentence (§2.3) makes more available the reading where it is the speaker that was suffering from an allergy. If, in contrast, it is the 3sg referent who had the allergy, the sentence with a null subject is infelicitous and the version with an overt subject would be preferred.

(134) Él tenía un poco de alergia.
      he had a bit   of allergy
      'He had a bit of an allergy'

At the same time, if one wanted to facilitate the identification of the 1sg as the subject of the sentence, (135) is equally possible, with the overt pronoun as the subject:

(135) Yo tenía un poco de alergia.
      I   had a bit   of allergy
      'I had a bit of an allergy'

However, note that this is an instance of implicit contrast in the sense of Mayol (2010) that we reviewed in §2.3.2-3 above. In this respect, it is not different from the sentences that follow, where the verb inflection already disambiguates between the two persons:

(136) a. Él tuvo un accidente, y no pudimos ver la película.
        he had an accident, and not could.1pl to.see the movie
      'He had an accident and we could not see the movie'
     b. Yo tuve un accidente, y no pudimos ver la película.
        I had an accident, and not could.1pl to.see the movie
      'I had an accident and we could not see the movie'

Also in these cases the speaker would use the overt pronouns to create implicit contrast, that is, to make it explicit that the accident did not involve both of them.

Similarly, there is no different effect in the syncretic imperfective and the non-syncretic perfective in the following sentence:

(137) Juana me llamaba con frecuencia cuando ø vivía en Sevilla.
      Juana me phoned with frequency when ø lived in Sevilla
      'Juana used to phone me when {she / I} lived in Sevilla'

Out of context, the sentence allows the null subject to refer both to the 3sg subject of the main clause (which is more salient), or to the 1sg subject. Notice, in particular, that no general notion of contrast is involved here, and that in fact it is perfectly possible that both Juana and the speaker lived in Sevilla at the time: Juana phoned him frequently because they were in touch on an everyday basis.

Now, the overt subject does not only disambiguate the referent given the absence of a morphological distinction, as a functional account predicts. It is also contrastive in the same sense as other overt pronominal subjects: both of the following two sentences exclude the reading where both Juana and the speaker lived in Sevilla at the time:

(138) a. Juana me llamaba con frecuencia cuando yo vivía en Sevilla.
        Juana me phoned with frequency when I lived in Sevilla
      'Juana used to phone me when I lived in Sevilla'

b. Juana me llamaba con frecuencia cuando ella vivía en Sevilla.
   Juana me phoned with frequency when she lived in Sevilla
'Juana used to phone me when she lived in Sevilla'

This is exactly the same effect that one obtains in the following pair, where the perfective is used. Note that the perfective morphologically identifies univocally both the 1sg and the 2sg.

(139) a. Juana me llamaba con frecuencia cuando yo viví en Sevilla.
         Juana me phoned with frequency when I lived.pfv in Sevilla
      'Juana used to phone me when I lived in Sevilla'
      b. Juana me llamaba con frecuencia cuando ella vivió en Sevilla.
         Juana me phoned with frequency when she lived.pfv in Sevilla
      'Juana used to phone me when she lived in Sevilla'

The claim that syncretic 1sg/3sg forms allow overt subjects without a contrastive reading has occasionally been made with respect to cases like the following, where the overt subject is virtually compulsory:

(140) a. María, pensaba yo, necesitaba vacaciones.
         María, thought I, needed.3sg   holidays
      'María, I thought, needed holidays'
      b. María, pensaba ella, necesitaba vacaciones.
         María, thought she, needed.3sg   holidays
      'María, she thought, needed holidays'
      c. ??María, pensaba, necesitaba vacaciones.
         María, thought, needed.3sg   holidays
      Intended: 'María, {she / I} thought, needed holidays'

The claim is not on the right track. Note first that, without focalisation, (140b) does not allow the pronoun *ella* 'she' to corefer to María, which is precisely what the general description of null vs. overt subjects predicts. Second, these uses are restricted to propositional attitude verbs: the parentheticals are in fact discourse-related markers that, in accordance with theories like Posio (2013), have become semi-lexicalised. Even without the need of lexicalisation, as Aijón Oliva and Serrano (2010) would say, the use of the parenthetical is precisely directed towards the introduction of specific viewpoints that conceptualise the discourse content by determining from whose perspective the claim is being presented.

Thus, to conclude this section, it seems clear that the rich inflection associated to the licensing of null subjects cannot be taken as a surface restriction: there are no clear contrasts between agreeing forms that univocally identify the subject and those that are syncretic, within the same language. If the richness of inflection plays a role at all, this role must be defined at a structural level, not at the level of which distinctions are directly visible with the verb alone.

With this, we finish the discussion of the null vs. overt subject opposition within main clauses. In the next section we will present the main empirical patterns documented in subordinate clauses.

3. The distribution of null subjects in Spanish (2): subordinate clauses

So far, we have focused mainly on main clause contexts. Some of the effects that we have discussed so far are particularly clear within subordinate clauses, when they are finite; §3.1 will focus on these contexts, that are frequently used to test different theories of the discourse role of the null vs. overt distinction. The distribution of subjects with non-finite verbs in Spanish, in particular infinitives, raises its own set of questions, which we will review in §3.2.

3.1. Finite contexts

In general, the opposition established between null and overt subjects in finite subordinate clauses in Spanish follows the same set of constraints as in the main clause cases, with a few small caveats that we will point out in this section. The general principle that an overt pronominal subject triggers a disjoint reading is particularly visible in two types of contexts: the subordinate clause of propositional attitude verbs and adjunct subordinate clauses.

3.1.1. Propositional attitude verbs and obviation effects

Starting with the first, which we already introduced when talking about the bound-variable reading of null subjects (§2.3), the pattern illustrated in (141) is general:

(141) a. Marta$_i$ dice que ø$_i$ está cansada.
          Marta says that ø   is   tired
       'Marta says that she is tired'
      b. *Marta$_i$ dice que ella$_i$ está cansada.
          *Marta says that she   is   tired
       Intended: 'Marta says that she is tired'

Unless the embedded subject is focalised, the interpretation of an overt subject in this context is that the pronoun does not refer to the holder of the propositional attitude, which corresponds to the subject of the main clause in these cases (see Sells 1987, Bianchi 2003, Giorgi 2009, Charnavel 2019 for different versions of the notion of 'logophoric center', which underlies these types of subordinate clauses). This fits very well with the general characterisation of the phenomenon, where the overt subject is associated to a shift in the topic that is being discussed, by default the subject of the previous clause.

Thus, the sentence with the embedded overt pronominal subject would be felicitous in a context where there is a second feminine singular (human) referent activated, to which the subordinate predicate applies. The sentence with an overt subject is therefore interpretable, for instance, in a context where Marta is describing the state in which her mother finds herself right now.

(142) Marta$_i$ dice que ella$_j$ está cansada.
      Marta says that she is   tired
      'Marta says that she (= her mother) is tired'

The mother can be accessible if it has been presented in the previous speech, or if she is somehow present in the communicative context and the speaker, for instance, points towards her when uttering the sentence.

The only way in which, in Standard Spanish, an overt embedded subject of this type can be coreferential with the attitude holder is in cases of focalisation, as the following examples show:

(143) a. Marta$_i$ dice que solo ella$_i$ está cansada.
　　　　Marta says that only she   is   tired
　　　'Marta says that only she is tired'
　　　b. Marta$_i$ dice que incluso ella$_i$ está cansada.
　　　　Marta says that even she   is   tired
　　　'Marta says that even she is tired'
　　　c. Marta$_i$ dice que ella$_i$ misma está cansada.
　　　　Marta says that she herself   is   tired
　　　'Marta says that even she is tired herself'
　　　d. Marta$_i$ dice que ELLA$_i$ está cansada, no Luisa.
　　　　Marta says that SHE   is   tired   , not Luisa
　　　'Marta says that SHE, and not Luisa, is tired'

Thus, the distribution is equivalent to the one we have revised so far for main clauses.

In accordance with the evidence that has been gathered in §2 above about overt pronominal subjects being more marked than null ones, the null subject reading allows broader interpretations. For instance, if the previous context has made the mother accessible enough, the null subject may refer to it when embedded under propositional attitude verbs. Imagine that the discourse starts with the following sentence:

(144) No　sé　　　　mucho de Luisa$_j$ estos días.
　　　not　know.1sg　much of Luisa　　these days
　　　'I don't know much from Luisa these days'

The sentence with a null embedded subject can in this context pick that salient referent without particular problems. The following sentence is a continuation to the previous one:

(145) Marta$_i$ dice que ø$_j$ está cansada.
　　　Marta says that ø   is   tired
　　　'Marta says that she (=Luisa) is tired'

The same effect is obtained with other types of propositional attitude verbs, including not only verbs of saying, but also verbs of belief, verbs of desire or even factive verbs that encode the valoration that a speaker makes of a state of affairs. The following sentences are equally acceptable with 'Luisa' as the reference of the null subject, even if the holder of the propositional attitude is a distinct individual:

(146) a. Marta$_i$ piensa que ø$_j$ está cansada.
　　　　Marta thinks that ø is   tired
　　　'Marta thinks that she (=Luisa) is tired'
　　　b. Marta$_i$ cree　　que ø$_j$ está cansada.
　　　　Marta believes   that ø is   tired
　　　'Marta believes that she (=Luisa) is tired'
　　　c. Marta$_i$ duda　　que ø$_j$ esté enferma.
　　　　Marta doubts   that ø   is   sick

'Marta doubts that she (=Luisa) is sick'
d. Marta$_i$ quiere   que ø$_j$ sea la madrina de su bebé.
   Marta wants   that ø   is   the godmother of her baby
'Marta wants that she (=Luisa) is the godmother of her baby'
e. Marta$_i$ lamenta   que ø$_j$ haya dejado de llamarla por teléfono.
   Marta regrets   that ø   has   stopped of calling her by phone
'Marta regrets that she (=Luisa) has stopped phoning her'

In this availability, the fact that some of these verbs interact with finiteness in establishing the reference of the null subject also plays a role. Specifically, verbs of desire and some verbs of valoration, which typically select subjunctive, give rise to an obviation effect (Picallo 1985, Kempchinsky 1986, 1998, Burzio 1989, Farkas 1992, Landau 2004, San Martín 2007, among others). These verbs do not allow the null subject of a finite clause to be coreferential to the subject of the main clause, as shown in the following example:

(147) Marta$_i$ quiere que   ø$_{j,*i}$ sea   la madrina del bebé de Luisa.
      Marta wants that   ø   is.sbj   the godmother of.the baby of Luisa
      'Marta wants that she (=someone else) is the godmother of Luisa's baby'

In order to allow a coreferential embedded subject, these verbs must introduce the subordinate clause with a non-finite verb, which radically excludes other possible referents:

(148) Marta$_i$ quiere ø$_{i,*j}$ ser   la madrina del bebé de Luisa.
      Marta wants ø   to.be   the godmother of.the baby of Luisa
      'Marta wants to be the godmother of Luisa's baby'

We will not get in all details with respect to this pattern, as here we are strictly concerned with the properties of the null subjects. We will just mention that the effect is typically related to subjunctive, as shown by some valoration verbs which allow indicative when there is no presupposition that the evaluated state of affairs is known to the interlocutor. The following sentence, in subjunctive, is not natural with a coreferential reading of the embedded null subject, in contrast to the infinitival construal:

(149) Marta$_i$ lamentó   que   ø$_{j,*i}$ eligiera   ese piso.
      Marta   regretted   that   ø   chose.sbj that apartment
      'Marta regretted that she (=someone else) chose that apartment'
(150) Marta$_i$ lamentó   ø$_{j,*i}$ elegir   ese piso.
      Marta   regretted   ø   to.choose   that apartment
      'Marta regretted to choose that apartment'

The same coreference is not equally rejected when the subordinate is in indicative, within a context where the subordinate state of affairs is not presupposed.

(151) Speaker A: ¿Por qué está triste Marta?
                for what is   sad   Marta?
                'Why is Marta sad?'
      Speaker B: Marta$_i$ lamenta   que   ø$_{j,?i}$ ha elegido   este piso.

      Marta   regrets   that   ø   has chosen this apartment
      'Marta regrets that she has chosen this apartment'

Also, verbs like *esperar* 'to hope', which allow the future instead of the subjunctive, also show similar effects:

(152) a. Marta$_i$ espera   que ø$_{i/j}$ será   capaz de hacerlo.
        Marta   hopes   that   will.be able to do-it
    'Marta hopes that she will be able to do it'
    b. Marta$_i$ espera   que ø$_{j/*i}$ sea   capaz de hacerlo.
        Marta   hopes   that   is.sbj   able to do-it
    'Marta hopes that she (=someone else) is able to do it'

The notion at play may not be strictly speaking the subject, but rather the attitude holder –irrespective of its syntactic function–. Landau (2004) finds cases where the subject is derived by passivisation where the obviation effect does not apply to it:

(153) Marta$_i$ fue animada   a que   ø$_i$ fuera   la madrina del bebé.
      Marta was encouraged to that   ø was.sbj the godmother of.the baby
      'Marta was encouraged to be the godmother of the baby'

Leaving all these complications aside, the core idea is that verbs which are subject to the obviation effect allow to a larger extent disjoint reference with the null subject than those that are not subject to it. This fact fits neatly with the overarching idea that the null vs. overt distinction is not grammatically controlled by coreference: if the disjoint reference is a pragmatic way of finding a reason for a speaker not to use the null pronoun when this is possible, we precisely expect that the interpretation of null and overt subjects depends on what is actually possible for the other, simpler strategies in each context. Verbs subject to the obviation effect already need to assign a marked interpretation to cases where the subordinate clause is finite, vs. when it is non-finite, and the most basic interpretation that explains the choice is one where the subjects are not coreferential.

3.1.2. Adjunct clauses
Moving now to the simpler case of adjunct clauses, the pattern illustrated in the following two examples is taken as a particularly clear manifestation of the coreferential vs. disjoint reading (see, for instance, Luján 1999):

(154) a. Cuando Juan$_i$ trabaja, ø$_i$ no bebe.
        when   Juan works   ø   not drinks
    'When Juan works, he (=Juan) does not drink'

    b. Cuando Juan$_i$ trabaja, él$_{j/*i}$ no bebe.
        when   Juan works   he   not drinks
    'When Juan works, he (=someone else) does not drink'

Unless some form of focalisation licenses the overt subject, this construal is associated with a topic shift, where there must be some other accessible participant in the discourse who does not drink when Juan is working, for whatever reason. In contrast, the preferred reading of the null subject version is one where it is Juan who

does not drink when he is working. The same comments as before can be done: the coreference to the previous subject can be obtained with the overt subject as soon as there is some form of focalisation:

(155) a. Cuando Juan$_i$ trabaja,   solo él$_{j/i}$ no bebe.
           when   Juan works   only he   not drinks
      'When Juan works, only he does not drink'
      b. Cuando Juan$_i$ trabaja,   incluso él$_{j/i}$ no bebe.
           when   Juan works   even   he   not drinks
      'When Juan works, even he does not drink'
      c. Cuando Juan$_i$ trabaja,   él$_{j/i}$ mismo no bebe.
           when   Juan works   he   himself not drinks
      'When Juan works, he himself does not drink'
      d. Cuando Juan$_i$ trabaja,   ÉL$_{j/i}$ no bebe, pero Marcos sí.
           when   Juan works   HE   not drinks, but Marcos does
      'When Juan works, HE does not drink, but Marcos does'

Similarly, if there is another participant that is accessible enough in the discourse context, it is also possible that the overt pronoun refers to it, and not to Juan.

(156) Speaker A: ¿Sigue Marcos$_j$ bebiendo mucho?
                  continues Marcos drinking a.lot?
                  'Does Marcos still drink a lot?'
      Speaker B: Cuando Juan$_i$ trabaja,   ø$_j$ no bebe.
                  when   Juan works   ø   not drinks
      'When Juan works, he (=Marcos) does not drink'

The main difference between these contexts and those where the coreference / disjoint reference is decided across distinct clauses is in the possibility of cataphoric, not anaphoric, coreference. In the cases we have presented so far in this section, the relation between the null subject and the previous subject is anaphoric: first, the reference is presented via a proper name (or an equivalent constituent), and then the null subject picks it from the previous speech. The following example is cataphoric: first the null subject is used, and the reference of the subject is determined in the text that follows:

(157) Cuando ø$_i$ trabaja, Juan$_i$ no bebe.
      when   ø works, Juan not drinks
      'When he (=Juan) works, Juan does not drink'

The same type of cataphoric relation cannot be obtained across sentences without additional constraints. It is very difficult to construe the following text in a way that the null subject is coreferential with the following subject:

(158) ?? ø$_i$ estaba enfermo en casa. Juan$_i$ llamó a un amigo.
         ø   was   sick   at home. Juan called to a friend
      Intended: 'He (=Juan) was sick at home. Juan called a friend'

In order to license this cataphoric relation, the problem that needs to overcome is clear: if the first subject refers to Juan, it is null in the first sentence because at that point

Juan, as a referent, must be accessible enough –it is the aboutness topic, the speaker points out to him in the context, etc.– to license the null pronoun. If that is the case, then, it is surprising that the speaker feels the need to use an overt subject now in the sentence that immediately follows it. Contexts where this is allowed would have to include cases in which there is a second, also very accessible referent that also can phone a friend in the situation, and the speaker wants to make it clear that it was Juan who phoned via focalisation or a contrastive topic. In contrast, in the subordinate - main clause pair that we have illustrated before, this focalisation is not necessary to allow the cataphoric relation.

Ultimately, what seems to lie behind the contrast is that the main clause and the subordinate belong to the same syntactic unit, a sentence, while the examples with independent clauses belong to the same text, or even the same utterance, but constitute two different units. This suggests that the resolution of the reference of the pronoun in subordinate clauses establishes contrast, in the broadest sense possible, within the main clause that it depends on, making it possible that, linearly, the two subjects are reversed without defining additional information structure requisites.

3.2. Non-finite contexts

Let us now move to non-finite contexts. In general, the generalisation is that Spanish –standard Spanish at least– does not allow overt subjects in the preverbal position of a non-finite verb; these contexts, as far as the preverbal position goes, are in principle compulsory contexts where null subjects must appear.

Notice however that non-null subject languages also block overt (preverbal) subjects with non-finite verbs, as shown in the following example:

(159) a. To smoke in a church is not acceptable.
     b. *Children to smoke in a church is not acceptable.

The theoretical and analytical relevance of the non-finite verb cases resides precisely in which contexts license what seems to be an overt subject with a non-finite verb. Those cases, as we will see in sections §5 and §6, have been taken as windows that determine where overt subjects are located in null subject languages, and which syntactic procedures license them.

3.2.1. Overt subjects with non-finite verbs

The general characterisation of overt subjects with infinitives, gerunds and participles is that their being in a post-verbal position is a prerequisite for them to be licensed. The following contrasts illustrate this basic property:

(160) a. Venir Juan e irse María fue todo uno.
         to.come Juan and to.leave María was all one
     'Juan's arriving and María's leaving happened at the same time'
     b. ??Juan venir y María irse fue todo uno.
          Juan to.come and María to.leave was all one
     Intended: 'Juan's arriving and María's leaving happened at the same time'
(161) a. Viviendo Juan en Madrid, ø conoció a su mujer.
         living   Juan in Madrid, ø met DOM his wife
     'When Juan was living in Madrid, he met his wife'
     b. *Juan viviendo en Madrid,   ø conoció a su mujer.
          Juan living   in Madrid,   ø met DOM his wife

Intended: 'When Juan was living in Madrid, he met his wife'
(162) a. Vestido el niño,   Marta fue al trabajo.
   dressed the child, Marta went to.the job
   'Once the child had been dressed, Marta went to work'
  b. ??El niño vestido,   Marta fue al trabajo.
    the child dressed, Marta went to.the job
   Intended: 'Once the child had been dressed, Marta went to work'

In what follows I will focus on infinitives, that are perhaps the most broadly studied class (see for instance De Miguel 1995 on the aspectual restrictions associated to infinitival clauses; see also Plann 1981, Hernanz 1982, Bosque 1989, Elordieta 1993, Fernández-Lagunilla & Anula 1994). Across the board, infinitival structures corresponding to nominal subordinate clauses, relative clauses and adjunct clauses require in Spanish that the overt subjects are postverbal, if overt at all. As can be seen in the translations, English, as a non-null subject language, does not allow overt subjects if not independently licensed as nominal arguments.

(163) a. El criticar   Juan mis palabras no me molesta.
   the to.criticise Juan my words not me bothers
  'That Juan criticises my words does not bother me' (cf. *To criticise Juan my words does not bother me, John's criticising my words does not bother me*)
  b. *El   Juan criticar mis palabras no me molesta.
    the Juan to.criticise my words not me bothers
  Intended: 'That Juan criticises my words does not bother me'
(164) a. Buscamos un lugar donde esconderme yo.
   search.1pl a   place where to-hide-me I
  'We were looking for a place where I could hide' (cf. *We were looking for a place where to hide I'*)
  b. *Buscamos un lugar donde yo   esconderme.
   search.1pl a   place where I   to-hide-me
  Intended: 'We were looking for a place where I could hide'
(165) a. Antes de llegar tú,   ø haremos la comida.
   before of to.arrive you ø will.make.1pl   the meal
  'Before you arrive, we will prepare the meal' (cf. *Before arriving you, we will prepare the meal'*)
  b. Antes de tú llegar,   ø haremos la comida.
   before of you to.arrive ø will.make.1pl   the meal
  Intended: 'Before you arrive, we will prepare the meal'

The fact that English does not license post-verbal overt subjects is evidence that the availability of postverbal subjects cannot be completely dissociated from the procedures, whatever they are, that license null subjects in Spanish. An obvious option that suggests itself is that the postverbal overt expressions are not in a subject position in such cases, and that the same principle that allows Spanish to be a null subject language licenses a null expression in the canonical subject position; this analysis has different possible implementations, which will be revised in §6 and §8.1.

Before going on, notice that not all structures behave in the same way with respect to the semantic requisites that they impose to the overt postverbal subjects. In some cases, such as relative infinitival clauses and final clauses, the overt subject must be

part of the group of entities that the main subject refers to. Consider relative clauses. If the subject is a 1pl, the pronoun *yo* is licensed, in contrast to the 3pl subject:

(166) a. Buscamos un lugar donde esconderme yo.
       search.1pl a place where to-hide-me I
    'We were looking for a place where I could hide'
    b. ??Buscan un lugar donde esconderme yo.
       search.3pl a place where to-hide-me I
    Intended: 'They were looking for a place where I could hide'

Also, nominal overt subjects –by default, interpreted as 3rd person– are better licensed when the subject is a 3pl.

(167) a. (?)Buscan un lugar donde dormir su madre.
       search.3pl a place where to-sleep their mother
    'They were looking for a place where their mother could sleep'
    b. *Buscamos un lugar donde dormir su madre.
       search.1pl a place where to-sleep their mother
    Intended: 'We were looking for a place where their mother could sleep'

Final clauses seem to behave in the same way:

(168) a. Fuimos a su casa para ayudarle yo con los trabajos.
      went.1pl to his house to to.help him I with the works
    'We went to his place so that I could help him with the homework'
    b. ??Vinieron a mi casa para ayudarles yo con los trabajos.
      came.1pl to my house to to.help-them I with the works
    Intended: 'They came to my place so that I could help them with the homework'

This strongly suggests that the subject must be at least partially coreferential with the main clause subject in these cases, as we would expect if the real subject of these infinitives are null pronouns that strongly trigger coreference (see §3.2.2 below). If so, the apparent overt subjects of these subordinate verbs should in fact be analysed as occupying some other position, perhaps a topic or focus one (see §6).

However, this situation contrasts with other cases of subordinate infinitives which do not require this part-whole relation between the two subjects, as is trivially the case where the subordinate is in a subject position itself –a context that has been noted to favour overt postverbal subjects, cf. RAE & ASALE (2009: §26.7l)–:

(169) El hecho de tener Juan tantas deudas motivó la venta del piso.
    the fact of to-have Juan so.many debts motivated the sale of.the house
    'The fact that Juan had so many debts led to the sale of the house'

Similarly, temporal and causal adjunct sentences easily allow independent overt subjects:

(170) a. Al venir Juan, María se fue.
      at-the to.come Juan, María SE left
    'As Juan arrived, María left'
    b. Después de morir su padre, Manolo dejó la carrera.

after   of to.die his father, Manolo left the grade
'After his father died, Manolo left his studies'
c.   Por estar enferma su madre, María se quedó en casa.
    for to.be sick   her mother, María SE stayed at home
'As her mother was sick, María stayed home'

Thus, at least some of the overt subjects found with infinitives seem to be properly referentially-independent expressions.

There are different comments that can be made about these patterns. First of all, not all varieties of the language behave in the same way (see §4.2 for these cases). Second, there is some degree of controversy with respect to whether some of these overt pronominal expressions are in fact subjects; the alternative analysis, defended for instance in RAE & ASALE (2009: §16.4v-x), is that sentences like the following, which in some cases even allow the pronoun to be preverbal, are instances of emphatic pronouns that specify aspects of the reference of the subject without occupying that position:

(171) a.   María revisó los exámenes para <u>ella misma</u> comprobar las notas.
       María revised the exams to   she herself check the grades
    'María read the exams again in order to check the grades herself'
b.   Lourdes aseguraba haber llegado <u>ella sola</u> al lugar del crimen.
       Lourdes claimed to-have arrived she alone to-the place of.the crime
    'Lourdes claimed that she alone had arrived to the crime site'

This type of view allows a treatment of these overt subjects as instances where an overt pronoun is used due to focalisation, in which case perhaps the constituents are not in a subject position. A clear argument in favour of this type of analysis is that the emphatic pronoun is compatible in many contexts with an overt subject, as in the following example:

(172) María comprobará ella misma las notas.
     María will.check   she herself the grades
     'María will check the grades herself'

Note that this analysis cannot be extended to most cases noted above, given the lack of a focalisation marker. When there is no focalisation marker, the pronoun cannot co-occur with the overt subject:

(173) a.   *María comprobará ella las notas.
       María will.check   she the grades
    Intended: 'María will check the grades'
b.   María comprobará ELLA las notas.
       María will.check   SHE the grades
    'María will check the grades herself'
c.   María comprobará ella sola las notas.
       María will.check   she alone the grades
    'María will check the grades alone'

This strongly suggests that a sentence like the following does contain a pronoun in the subject position, which would mean that the post-verbal order is due to the verb

moving to a higher position than the subject, not the subject staying within the predicate.

(174) Buscan   un lugar donde esconderse ella.
      search.3pl a   place where to-hide-SE she
      'They were looking for a place where she could hide'

It has also been noted that post-verbal subjects are licensed easier when the subordinate clause is in an adjunct position than when it is not (Elordieta 1993). Outside the emphatic pronoun context, the following contrast is telling:

(175) a. *Marta aseguró llegar los niños a casa.
            Marta assured to.arrive the children to home
         Intended: 'Marta assured that the children had arrived home'
      b. Marta ordenó la habitación antes de llegar los niños a casa.
          Marta ordered the room   before of to.arrive the children to home
         'Marta tidied the room up before the children arrived home'

The contrast has been explained by some authors as indicating that non-finite clauses have a temporal denotation when adjuncts (Fernández-Lagunilla & Anula 1994); that temporal meaning would allow the formal strengthening of the subject position, allowing overt subjects in cases where the verb combines with a prepositional element.

In fact, some non-finite contexts do allow preverbal overt subjects provided that the element used to link the subordinate to the main clause is prepositional. The following two cases clearly illustrate this context. Note that these cases even license overt subjects in English.

(176) a. Mis colegas presentaron el trabajo sin   yo saber-lo.
          my colleagues presented the work without   I   to.know-it
         'My colleagues presented the work without me knowing it'
      b. Con Pedro   durmiendo no podemos cantar.
          with Pedro   sleeping   not can.1pl to.sing
         'With Pedro sleeping we cannot sing'

Most analyses of such cases suggest that the preposition contributes to licensing the subject in the preverbal position, either by satisfying its case itself or by strengthening the head that otherwise licenses overt subjects. Note, in this respect, that each one of the two options might be appropriate for different cases, with *con* 'with' able to combine with an oblique subject, in contrast to *sin* 'without':

(177) a. *Mis colegas presentaron el trabajo sin   mí   saber-lo.
            my colleagues presented the work without   me   to.know-it
         Intended: 'My colleagues presented the work without me knowing it'
      b. Con-tigo   durmiendo no podemos cantar.
          with-you   sleeping   not can.1pl to.sing
         'With you sleeping we cannot sing'

However, the theory that treats cases where preverbal subjects are licensed as instances where a prepositional element licenses them faces some additional complications. Specifically, not every element that seems to be a preposition used to

introduce subordinate clauses allows preverbal subjects. *Para* 'for' and *por* 'for' do not seem to allow it, even though postverbal subjects are natural with them (in the appropriate discourse context). See §4.2.4 for exceptions to these patterns in some varieties of Spanish.

(178) a. Marcos se quedó en casa por estar Marta enferma.
       Marcos SE stayed at home for to.be Marta sick
   'Marcos stayed home because Marta was sick'
   b. ??Marcos se quedó en casa por Marta estar enferma.
       Marcos SE stayed at home for Marta to.be sick
   Intended: 'Marcos stayed home because Marta was sick'

(179) a. Fuimos a su casa para ayudarle yo con los trabajos.
       went.1pl to his house to to.help him I with the works
   'We went to his place so that I could help him with the homework'
   b. *Fuimos a su casa para yo ayudarle con los trabajos.
        went.1pl to his house to I to.help him I with the works
   Intended: 'We went to his place so that I could help him with the homework'

To conclude this subsection: non-finite verbs in Spanish allow overt subjects at least in some cases, once one controls for part-whole relations and possible emphatic cases. When they are allowed as referentially-independent pronouns, they tend to appear in adjunct clauses, or in subject clauses. In a few instances, the subjects can even appear preverbally, a structure that involves a subset of the conjunctions that are also used as prepositions.

3.2.2. Null subjects in non-finite subordinate clauses

The broad generalisation with respect to null subjects in non-finite contexts is that the requisite that the subject is coreferential with one of the arguments previously introduced in the same clause is stronger than with finite clauses. In order to see this, imagine a context where both Juan and Pedro are accessible salient referents. In this context, reference to Pedro with the null subject of the infinitives is discarded, as witnessed by the following examples. I provide also a finite clause example, where it can be seen that reference to Pedro in such cases is possible:

(180) Speaker A: ¿Sabes   algo   de Pedro$_j$?
            know.2sg anything   of Pedro?
           'Do you know anything about Pedro?'
    Speaker B: a. Juan$_i$ asegura   ø$_{i,*j}$ estar enfermo.
            Juan assures   ø   to.be sick
         'Juan says that he (=Juan) is sick'
       b. Juan$_i$ parece   ø$_{i,*j}$ estar enfermo.
            Juan seems   ø   to.be sick
         'Juan seems to be sick'
       c. Juan$_i$ asegura que ø$_{i,j}$ está enfermo.
            Juan says   that ø   is   sick
         'Juan says that he (=Juan or Pedro) is sick'

Thus, non-finite null subjects have a strict coreference condition with the referents introduced in the same sentence –with the exception of arbitrary readings, which we will revise below–. In order to explain this dependency it is traditional to differentiate

between two types of main predicates, the so-called raising predicates and the so-called control predicates (Rosenbaum 1967). In what follows, I will only make a few remarks about the distinction that I consider necessary for the rest of the discussion, but I will not cover in detail the many different empirical properties that differentiate them, or theories about it (see Polinsky 2013 for a recent overview).

Raising predicates are those which do not take the antecedent of the null subject as an argument, as it is the case of *parecer* 'seem'. This verb denotes an epistemic attitude towards a state of affairs, as shown in (181):

(181) Parece   que Juan está enfermo.
      seems   that Juan is   sick
      'It seems that Juan is sick'

Given that the sole argument of this use of *parecer* is a proposition, it follows that it does not take Juan, which is an individual, as an argument. The question is then what makes *Juan* appear in the subject position with these verbs when the subordinate clause is non-finite, as in *Juan seems to be sick*. The answer that was provided early in the tradition (Rosenbaum 1967, Bresnan 1972, Jackendoff 1972, Chomsky 1973, Postal 1974) is that this happens as a result of movement: in raising verbs, the overt argument starts inside the subordinate clause and moves from there to the subject position of the main verb. Although anachronic in the 70s, I represent the starting position of the argument with *t*, for trace.

(182) Juan$_i$ parece   t$_i$ estar enfermo.
      Juan   seems   t   to.be sick
      'Juan seems to be sick'

From Chomsky & Lasnik (1977), the idea that this movement is triggered in order to license case became standard. The core idea is that finite verbs are introduced by functional structure, which is able to license an overt subject, while non-finite verbs lack that structure –or have it in an impoverished version–, making it impossible to license the overt subject within the subordinate clause. Movement to the main verb is driven by the need to satisfy case, which happens provided that verb is finite.

Thus, in raising verbs, the condition that the null subject is coreferential with an argument of the main clause is explained by movement: the null subject is actually a phonologically silent instance of the overt subject –either a trace which forms a discontinuous constituent with it, a chain (Chomsky 1981), or an identical copy (Chomsky 1995), depending on technical assumptions that we will leave aside.

We will here focus on the second class, so-called control verbs, because those are the only cases where some analyses propose that there is a syntactically independent null subject in the non-finite clause (Williams 1980, Chomsky 1981, 1982; Manzini 1983a, 1983b; Koster 1984, Huang 1989, among others).

In a control verb, the antecedent of the null subject is taken as an argument by the main verb. In our example, with *asegurar* 'assure', it is clear that Juan is an argument of that predicate. The verb denotes the transmission of information to others, and semantically restricts the type of subject that is allowed with it:

(183) {Juan / Este libro / #La pared} asegura que esto es verdad.
       Juan / this book /   the wall   assures that this is true
      '{Juan / This book / #The wall} says that this is true'

In the theoretical universe where the distinction between raising and control was first stated, there was a principle known as The Theta-Criterion (Chomsky 1981; see Fábregas 2024 for an overview). Part of this principle stated that one argument could only get one theta role from a verb:

(184) Theta-criterion
     a. Each argument bears exactly one theta role
     b. Each theta role is assigned to exactly one argument

A movement analysis was, then, discarded. If we treated the control verb as a raising verb, as in the following example, the hypothesis would be that the constituent would first get a theta role from the verb in the subordinate clause, and then another one from the verb in the main clause –remember that during this time period, the subject position was a thematic position–.

(185) Juan$_i$ aseguró t_i estar enfermo.
     Juan   assured   t   to.be sick
     'Juan said that he was sick'

As the reader probably knows, once the Theta Criterion (or part of it) stopped being a principle, the double theta-role assigned to the moved subject was no longer automatically discarded, and in fact some approaches unify raising and control verbs in the sense that in both cases the coreference is obtained by moving the overt argument from the non-finite subject position (Hornstein 1999, 2009). I will however leave this account aside, where there is no independent null subject, and focus on the alternative theory.

The alternative theory was that in control verbs there is a special type of null pronoun in the subject position. That null pronoun was different from finite null subjects in at least two respects: first, it was semantically dependent to a larger extent than null pronouns, being unable to introduce its own referent. Second, unlike finite null subjects, the null subjects of non-finite clauses are available in all languages, including those that otherwise require overt subjects.

That special null pronoun received the name of PRO, read as 'big pro'. This pronominal is base generated in the subject position, and does not move to the main clause:

(186) Juan$_i$ aseguró   PRO$_i$ estar enfermo.
     Juan   assured   PRO   to.be sick
     'Juan said that he was sick'

In principle, this PRO can appear both in subject and object position (Rizzi 1986), but here I will focus on the subject position only. The central idea was that PRO, in contrast to other null subjects, could not receive case, which had as a consequence that it would be restricted to contexts where no case could be licensed, as it was the case of non-finite subjects. Overt expressions require case, and for this reason PRO cannot alternate with overt pronouns and noun phrases –unless something else, like a preposition, satisfied case; §3.2.1 (see §4.2 for exceptions)–. This explains the ungrammaticality of the following sentence:

(187) *Juan   aseguró   Pedro   estar enfermo.
     Juan   assured   Pedro   to.be sick
     Intended: 'Juan said that Pedro was sick'

Later elaborations of the theory considered that it was strange that the licensing conditions of PRO were defined negatively –not being able to get case– and proposed that infinitives assign a default type of case, null case, to their subjects; PRO is the only expression that can get null case in this approach (Chomsky & Lasnik 1993).

From a semantic perspective, the interpretation of PRO was dealt with through what came to be known as Control Theory (Williams 1980, Chomsky 1981, Manzini 1983a). PRO was special in being an anaphor with special properties; as an anaphor, it had to be linked to a category within the domain of the finite clause (thus, outside the non-finite clause where it is located). This antecedent is the subject with some lexically-determined verbs, as in the case of *asegurar* 'assure' above. Even when another argument is introduced, as in the next example, the interpretation of the null subject must be coreferential with the subject of the main clause:

(188) Juan$_i$ le aseguró a Pedro$_j$ PRO$_{i,*j}$ estar enfermo.
     Juan him assured to Pedro PRO to.be sick
     'Juan assured Pedro that he (=Juan) was sick'

Note, then, that it is not empirically correct that the PRO is controlled by the closest argument, as the dative in this example is presumably hierarchically lower than the subject. This was viewed at the time as a problem for Rosenbaum's (1967) Minimal Distance Principle, and it is currently viewed as a problem for theories that also use movement in control structures (cf. Landau 2000). Ultimately, the theories about these issues had to admit that which argument was favoured as an antecedent was a lexical fact.

Other verbs, so-called Object Control verbs, designated the object of the main verb as the controller. This is a typical situation with influence verbs:

(189) Juan$_i$ obligó   a   Pedro$_j$ a PRO$_{j,*i}$ fregar el suelo.
     Juan forced   DOM   Pedro to PRO   wash the floor
     'Juan forced Pedro to wash the floor'

The special status of PRO among anaphoric expressions consists in that it is licensed in contexts without any controller. In those contexts, however, the interpretation cannot be referential –it cannot refer to a specific referent in a previous sentence or within the discourse context–. In the following sentence, where the finite clause where the infinitive is contained lacks an overt referential argument, it is clear that one cannot interpret that Pedro or Juan is the referential subject of the infinitive.

(190) Juan le dice a Pedro que   [PRO fumar] es malo.
     Juan him says to Pedro that   PRO to.smoke is bad
     'Juan is telling Pedro that smoking is bad'

In such cases, unlike other anaphors, the null subject that is technically represented as PRO received the so-called arbitrary interpretation. The arbitrary interpretation does not pick any specific referent from the context, and is generally described as a human generic form, equivalent to 'any human'. This is the reading that is favoured when the

main clause where it is embedded is interpreted generically, as in the previous example, but it is equally possible to find human existential readings where the generic interpretation is not salient. If we are at home and the garbage starts to smell, I can say the following sentence conveying that someone, anyone, should take out the garbage.

(191) Es necesario PRO sacar   la basura.
       is necessary PRO to.take.out   the garbage
       'It is necessary to take out the garbage'

Note that the relevant interpretation of the subject is equivalent to 'at least one person', allowing but not forcing that more than one person performs the deed. The reading is generic in the same sense that the null 3pl subject described in §2.2.4 above is arbitrary. Remember that in sentences like the following, the subject must be interpreted as animate, and the plural does not require the subject to be a group of entities.

(192) ø llama-n   a la puerta.
       ø knock-3pl   at the door
       'Someone is knocking at the door'

The arbitrary PRO has these properties too, even if in most cases the genericity associated to the lack of overt arguments favours a generic interpretation. It is tempting, then, to treat arbitrary PRO as a special pronominal form related somehow to the 3pl arbitrary null subject that appears in finite contexts. This is, however, not the general course that research took: in Chomsky (1981), the arbitrary PRO is the same PRO that gets the referential interpretation from a controller, and this possibility is legitimate because he defines PRO as an anaphoric-pronominal category. Manzini (1983a) questions this approach, and instead argues that, when a governing category is not found, PRO can be bound and get a variable interpretation.

The reason why accounts do not treat arbitrary PRO as a distinct null subject from other types of PRO is that the arbitrary reading of PRO emerges only when there is no possible controller. In a syntactic structure where there is a possible controller, the arbitrary reading is not possible. In the following sentence, it is impossible to interpret something like 'Juan says that everybody sleeps 8 hours'.

(193) Juan dice PRO dormir ocho horas.
       Juan says PRO to.sleep eight hours
       'Juan says that he (=Juan) sleeps eight hours'

If the arbitrary reading involved a different pronoun, and not a reading that emerges in specific contexts, this restriction would be surprising.

Strictly speaking, cases of arbitrary PRO show that the interpretation of these subjects is freer than the cases with a controller suggest by themselves, even though it is still true that the null subject of non-finite clauses has a much more restricted range of readings than the equivalent finite subjects. In the arbitrary reading, although no specific referent is picked, the subject is necessarily distinct from the one present within the main clause.

Next to cases where there is no controller, the literature differentiates between exhaustive and partial control (Landau 2000). In exhaustive control, PRO must be coreferential to an antecedent in the main clause, and that antecedent is the only

reference for PRO –cf. the cases we have reviewed so far, except the arbitrary interpretation–. In partial control, the reference of PRO must include the antecedent, but additional participants may be interpreted. A verb like *preferir* 'prefer' fits this class.

(194) Miguel$_i$ prefiere   PRO$_{i+j}$ reunirse por la mañana.
      Miguel prefers   PRO   to.meet by the morning
      'Miguel prefers to meet in the morning'

The null subject cannot simply refer to Miguel, a single individual. We know this because a verb like *reunirse* 'meet' requires at least two individuals to be semantically satisfied –one cannot meet alone–, and Miguel is only one individual. As the sentence is grammatical, this can only mean that PRO obligatorily includes Miguel in its reference and also adds at least a second referent, which may or may not correspond to a salient accessible referent in the speech situation –for instance, it may be the speaker–.

Similarly to partial control, the so-called Split Control cases involve situations where the reference of PRO is taken simultaneously from two distinct overt arguments. The verb *prometer* 'to promise' follows this pattern:

(195) Luis$_i$ le prometió a Marta$_j$ PRO$_{i+j}$ ver la serie juntos.
      Luis   her promised to Marta PRO to.see the series together
      'Luis promised Marta to watch the series together'

The modifier *juntos* 'together' forces a reading where the person that watches is not just Luis or just Marta, but the two of them. It is even possible that a third participant (or several others) is part of the interpretation –for instance, not just Luis and Marta, but also their children–, showing that this may be taken as a partial control instance. Indeed, if only one of the arguments is taken as the reference, the verb prometer 'promise' forces coreference with the subject:

(196) Luis$_i$ le prometió a Marta$_j$ PRO$_i$ ver la serie {solo / *sola}.
      Luis   her promised to Marta PRO to.see the series {alone.m / alone.f}
      'Luis promised Marta to watch the series alone'

This pattern shows that partial control is still obligatory control –control by a clausemate argument, which must be uniquely defined–. First of all, the modifier *solo* 'alone' is grammatical in this context only with masculine agreement, showing that if only one argument is taken as controller, it cannot be Marta, which triggers feminine agreement. Secondly, the masculine must refer to Luis –it cannot refer, for instance, to their child–. The conclusion is that *prometer* is a subject control verb which allows partial control: the split control cases are instances where the additional referents added to the meaning happen to coincide with another overt argument; reference to another participant not directly encoded in the sentence is only allowed provided that the subject is part of the reference of PRO. If we explicitly delimit that reference to one single individual, with *solo* 'alone', then that individual must be the subject.

To conclude this section: the null subject of non-finite verbs is more restricted in interpretation than the equivalent subjects in finite contexts. Specifically, additional accessible referents in the discourse situation are only part of their denotation if added to the overt, linguistically explicit controller when partial control is possible. The null subject cannot refer only to other referents that are not syntactically represented in the

same clause, but it can get an arbitrary non-referential reading which can be described as arbitrary.

At this point, we have already reviewed the main empirical facts of Spanish null subjects. It is the moment of moving to the theoretical questions that the existence of null subjects trigger in Spanish. We will start by locating Spanish within a broader typology of null subject languages, attending both to the contrast with other languages and with the attested internal dialectal variation.

4. Spanish null subjects in a variationist perspective

So far we have focused on how most varieties of Spanish behave with respect to the availability of null subjects. In this section we will contextualise these facts in a broader background. We will start in §4.1 with the question of what type of null subject language best describes the Spanish patterns, as we have presented them in §2 and §3 above. Answering this question requires a presentation of the five existing types of language with respect to the (non-)availability of null subjects, and a discussion that presents to what extent Spanish meets the requisites of a Consistent null subject language, which is the most common observation.

The discussion of these patterns immediately raises the question of whether Spanish, as a block, behaves in the same way with respect to the distribution of null subjects. The answer is that it does not behave in a monolithic way. Although no (known) Spanish variety lacks null subjects in all contexts, some well-studied varieties, mainly from the Caribbean, differ from the description given in §2 and §3 above in crucial respects. §4.2 is devoted to the description of the phenomena where some varieties differ from the patterns presented so far.

4.1. Spanish null subjects cross-linguistically

It is well-known that the possibility of having null subjects has been treated as a parameter, specifically the so-called 'Pro-drop Parameter' or 'Null Subject Parameter'. Following ideas originally due to Perlmutter (1968), the advent of the so-called Principles and Parameters framework (Chomsky 1981), the idea is that all languages must define a syntactic subject position in every sentence –the principle–, but some of them additionally require that position to be occupied by an overt expression –the parameter– (Taraldsen 1978, Jaeggli 1982). This simplified version allowed for only two values: (i) subjects can be null –a Pro-drop language– and (ii) subjects must be phonologically overt –a non-Pro-drop language–.

As we will see, the standard characterisation of null subjects, with these only two values, is now considered an oversimplification. Five different types of languages are differentiated: beyond languages that do not allow null subjects in any case –the non-Pro-drop languages–, there are four types of Pro-drop, which are respectively known as Expletive null subject languages (§4.1.1), Partial null subject languages (themselves potentially a conglomerate of different types of languages, §4.1.2), Consistent null subject languages (§4.1.3) and Discourse pro-drop or Radical pro-drop languages (§4.1.4). Some researchers that have worked on these issues have argued that the four types of null subject languages are in a containment relation, as follows (Biberauer et al. 2010):

(197) expletive null subject < partial null subject < consistent null subject < discourse pro-drop

The idea is that the types of subjects that can be null in a language belonging to a class on the left are always a subset of the subjects that classes on the right allow. Thus, for instance, no language should be identified that allows argumental subjects to be null but requires expletive subjects to be overt.

However, as we will see, the containment relation that some theories propose is complicated by two issues. First, it is unclear how to characterise in the general case a Partial null subject language, beyond the obvious claim that not all types of referential subjects can be null. Second, there is a qualitative difference between Discourse pro-drop languages and the other three types: what makes the former special is the way in which one assumes that the reference of the null argument is obtained, not per se the types of subjects that can be null.

Before we get into the details, the following table summarises the main differences between the five types of languages. We will not discuss the first type, those where no subject can be null in the general case. This type of language, where English is normally classified, is taken as a background that allows us to discuss the other four types.

Table 1. The five types of languages according to which subjects can be null

	Expletive subjects	1st and 2nd person subjects	3rd person subjects	Recovery of the null referent
Non-Pro-drop language	No	No	No	Not applicable (no recovery)
Expletive null subject language	Yes	No	No	Not applicable (no referent)
Partial null subject language	Yes	Yes	No	Grammatical (perhaps inflection)
Consistent null subject language	Yes	Yes	Yes	Grammatical (perhaps inflection)
Discourse pro-drop language	Yes	Yes	Yes	Discursive (topichood)

4.1.1. Expletive null subject languages

Since the Pro-drop parameter was identified, there were plenty of works that noticed that more than two options where required to capture the different patterns of data that natural languages provide. Early on, Rizzi (1982) noted that some languages only allow null subjects when the subject is an expletive expression (remember §2.1 above), while other allowed null subjects of other types. The languages where only expletive subjects can be silent, which include Yiddish, Icelandic, Faroese, Standard German, Papiamentu, Jamaican, Haitian or Mauritian (Roberts 2007, Barbosa 2011), are called 'Expletive null subject languages'.

Allowing expletive pro-drop may mean different things; as we will see in §4.2.1, it may mean that expletive subjects may be null but they can also be overt, as in Dominican Republic Spanish. It can also mean that there are syntactically well-defined contexts where the expletive is null, while other contexts still require that it is overt.

Let us illustrate these languages with the case of German, to see that the pattern of data is sometimes quite subtle (Cardinaletti 1990, Vikner 1995). As can be see below, in German an expletive subject may be compulsory, as in non-inverted main clauses.

(198) *(Es) wurde getantz.
     it   was danced
    'There was dancing'

However, what makes German classifiable as an expletive pro-drop language is that this type of expletive can be null in inversion contexts and in subordinate clauses, as shown by each one of the following two examples.

(199) a. Gestern wurde ø getanzt.
      yesterday was   danced
    'There was dancing yesterday'
    b. ...dass   ø getanzt wurde.
       that   danced was
    '...that there was dancing'

4.1.2. Partial null subject languages

A second type of null subject language is similar to Expletive null subject languages in that they do not allow null subjects across the board, but differs from them in that the relevant grammatical cut does not differentiate expletive subjects and argumental subjects, but other types of morphosyntactic notions. Which morphosyntactic notions these are is, however, difficult to establish.

The origin of the concept of Partial null subject languages is in Holmberg's (2005) analysis of Finnish (cf. also Holmberg, Nayudu & Sheehan 2009). In Finnish, the participant related pronouns can always be silent, but those referring to third persons cannot in the general case. The following examples, from Finnish, show that main clauses allow that 1st and 2nd person pronouns are null:

(200) a. (Minä) puhun   englantia.
      I   speak.1sg English
    'I speak English'
    b. (Sinä) puhut   englantia.
      you.sg speak.2sg English
    'You speak English'
    c. (Me)   puhumme englantia
      we   speak.1pl English
    'We speak English'
    d. (Te)   puhutte   englantia
      you.pl speak.2pl English
    'You speak English'

In contrast, third person pronouns cannot just be null in any context, even when interpreted as animate.

(201) a. *(Hän) puhuu   englantia
      he/she speaks   English
    Intended: 'She speaks English'

    b. *(He)   puhuvat   englantia
       they   speak.3pl   English
  'They speak English'

Beyond the obvious observation that, in contrast to overt expletives in a pro-drop language, Finnish 1st and 2nd person pronouns can be overt, note that Finnish 3rd person pronouns may be null under certain conditions (Vainikka & Levy 1999, Holmberg & Nikane 2002, Gutman 2004). Specifically, in order to be null it seems that third person Finnish pronouns must be coreferential with a syntactically higher argument. Interestingly, all the examples provided by Holmberg (2005: 539) for grammatical 3rd person null subjects involve subordinate clauses where the null subject is embedded in a subordinate clause, mostly but not only under propositional attitude predicates or in contexts that could make them coreferential to empathy loci, which may suggest a logophoric analysis (cf. Sells 1987, Charnavel 2019).

(202) Pekka$_i$ väittää   että   {hän$_{i,j}$ / ø$_{i, *j}$}   puhuu englantia hyvin.
      Pekka   claims   that   {he   / ø }   speaks English well
      'Pekka claims that he speaks English well'

Among the languages that have been argued to be Partial null subject languages, because they make a distinction between types of argumental subjects, we find Hebrew, Marathi, Russian and colloquial Brazilian Portuguese, in addition to Finnish (Barbosa 2011).

Given this tradition, where the concept of Partial null subject language was first identified for Finnish, it has become customary to associate partial null subjects to languages which make a divide between participant pronouns and 3rd person pronouns: if the language automatically licenses 1st and 2nd person subject pro-drop, but requires at least special contexts to license 3rd person pro-drop, the language is automatically a partial null subject language.

However, things are more difficult to evaluate than what this simple characterisation suggests. First of all, and as we have already seen in §2.3, it is not true that null subjects, even those for 1st and 2nd person, can be silent without any type of discourse effects. We have seen for instance that 1st and 2nd person subjects cannot be null when there is a contrastive effect, and that this has been in part explained as an effect of the discourse unicity of speakers and addressees, given one and the same communicative situation (§2.3.2). From this perspective, both participant pronouns and 3rd person pronouns may be subject to essentially the same set of constraints in order to appear null –they must be identifiable in the context–, with the difference between them coming only from the independent fact that in one single utterance there is only one speaker and one addressee but there are potentially many third person referents involved. The coreference requisite that restricts 3rd person null pronouns in Finnish is perhaps what it takes for a 3rd person to be univocally identified in an utterance in the same way that 1st and 2nd person pronouns are already univocally identified by their semantic definition.

The opposite is also logically conceivable, that is, that a Partial null subject language makes a divide not based on participant vs. non-participant pronouns –or, as we will see momentarily, between discourse-bound and not discourse bound–, but still should be characterised as a Partial null subject language because it makes a different divide. In fact, after Holmberg (2005), Holmberg, Nayudu & Sheehan (2009) revised the characterisation of Partial null subject languages and proposed a different set of

principles that should be followed to characterise these types of languages. In their list the following four properties are associated to Partial null subject languages in contrast to Consistent null subject ones:

a) Partial null languages optionally allow overt subjects in embedded propositional attitude contexts when they are coreferential with the subject. In the following sentence from Brazilian Portuguese, the subject of the embedded clause can be coreferential with the subject of the main clause, while the equivalent in Spanish (excluding focalisation) cannot:

(203) a. O João$_i$ disse que {ele$_i$ / ø$_i$} tinha comprado uma casa.
        the João said   that he   / ø   had bought a house
    'João said that he had bought a house'
    b. Juan$_i$ dijo que {él$_{*i,j}$ / ø$_i$} había comprado una casa.
        Juan   said that he   / ø   had   bought a house
    'Juan said that he had bought a house'

b) In the same syntactic context, if the language is a Partial null subject language the embedded subject must be overt to pick a referent different from the subject, while a Consistent language will allow null if the referent has been activated.

(204) O João$_i$ disse que {ele$_j$ / ø$_{*j}$} tinha comprado uma casa.
    the João said   that he   / ø   had bought a house
    'João said that he [=someone else] had bought a house'

c) Generic pronouns are null in Partial null subject languages, but they must be overt or otherwise marked in a different way in a Consistent null subject language:

(205) Nesse hotel não   ø   pode entrar na   piscina   bêbado.
    in-this hotel not   ø   can   enter in-the swimming-pool   drunk
    'In this hotel it is not permitted to go in the swimming pool drunk'

d) Typically, the inflectional system of the language is impoverished in some sense (see Holmberg et al. 2009: 75-78 for discussion).

Obviously, as a surface effect of these differences one can also expect that, statistically, the rate of use of overt pronouns will be higher than the one of Consistent null subject languages. Other authors, like Frascarelli & Jiménez-Fernández (2019), mention that a sign of a Partial null subject language may also be a non-absolute preference for preverbal subjects.

Still, there are other possible differences that might introduce different sets of properties to differentiate between degrees of pro-drop, so to say. For instance, Cape Verdean Creole (Baptista 1995) makes a cut between definite and non-definite pronominal expressions. This language allows null subjects in expletive and generic / existential contexts:

(206) a. ø   sta faze   frio.
        ø   is   making   cold
    'It is cold'
    b. Na   veron,   ø   ta   korda   sedu.

in.the   summer,   ø ASP wake   early
'In the summer, one wakes up early'

In contrast, definite subjects that pick a referent anaphorically or by the discourse situation cannot be null.

(207) a. El   ta   trabadja duro.
        he   ASP works   hard
    'He works hard'
    b. *ø   ta   trabadja duro.
        ø   ASP works   hard
    Intended: 'He works hard'

It is clear that, cross-linguistically, there are different degrees of null subjects when one leaves aside the expletive cases, but it is not equally clear to what extent these different degrees should all fall within the established label of Partial null subject language, and whether they constitute hierarchically ordered subtypes of this class or not. Again, the underlying problem is that which cuts exactly are enough to claim that a language is Partial or not are not (yet) well-determined from a cross-linguistic perspective.

As we will see in the theoretical discussion of which type of null subject language Spanish is (§4.1.5), to a great extent determining whether a language is a Consistent null subject language with the expected discourse-related restrictions, or a Partial null subject language that makes a particular grammatical divide, is an analytical question that depends on whether the researcher has evidence to treat a particular distinction as grammatical –syntactic and semantic– or has to treat it as a pragmatic, discourse-related, filter which imposes different informational interpretation to perfectly valid syntactic structures.

As Frascarelli & Jiménez-Fernández (2019) have explicitly noted for Spanish (see §4.1.5), determining whether a language is a Partial null subject language, and in that case of which type, is a very complex matter. In order to see that consider another prototypical sign that has been associated to Partial null subject languages. Holmberg (2005: 540), again basing his claim on the analysis of Finnish null subjects, proposes that Partial null subject languages require that generic pronominal subjects are null. This means for him not only that there are no overt generic subjects, but also that there are no special verbal forms used in the generic interpretation. Like this, Finnish would be a Partial null subject language because there is no overt subject in (208), and the same 3rd person inflectional form as in non-generics is used in the verb, but Greek would not be one, because a special inflectional form is used in the generic (209):

(208) Täällä   ei   saa   polttaa.
       here   not   may   smoke
       'One cannot smoke here'
(209) Apoghorevete   to kapnisma.
       prohibit-3sg-pass the smoking
       'One can't smoke here'

The claim is remarkable for one reason: it is not imposing a condition on when a null subject is excluded, unlike what was the case with the contrast between participant

pronouns and 3rd person pronouns, but it imposes a restriction on when null subjects are compulsory, which is arguably not present in other contexts.

The claim is also quite difficult to interpret in particular practical cases. For one, it presupposes particular analyses of clitic pronouns; for instance, Biberauer et al. (2010) claim that the test gives negative results in Italian because Italian generics involve a reflexive *si*, which they analyse as a special subject clitic form:

(210) Qui non si   può fumare.
     here not refl   may smoke
     'One cannot smoke here'

It also requires specific analyses of some apparent pronominal forms, like Spanish *uno* 'one', that we already mentioned in §2.2.4, when interpreted as a generic.

(211) Uno no puede fumar aquí.
     one not may   smoke here
     'One cannot smoke here'

If *uno* 'one' is analysed as a generic pronoun, the previous sentence may be taken as a sign that Spanish is not a Partial null subject language, given that it is obviously overt –and must be overt– in the generic interpretation. Alternatively, if analysed as an indefinite which becomes generic under the scope of an appropriate quantifier, the previous sentence can be compatible with ascribing Spanish to the class of Partial null subject languages.

4.1.3. Consistent null subject languages

Consistent null subject languages are, in principle, those that allow null subjects at least in expletive, participant and 3rd person cases. In linguistic research, these were the first type of null subject languages to be identified, and those which defined the prototypical properties of a language that allows null subjects. Italian has been traditionally classified as a consistent null subject language, and this will be the language that we will use to illustrate those properties.

First of all, Consistent null subject languages do not have overt expletive subjects:

(212) ø   neva.
     ø   snows
     'It is snowing'

Second, these languages do not make in principle any distinction across person-number combinations: all persons and numbers allow potential null subjects:

(213) Conjugation of *parlare* 'speak', present indicative
     1sg   ø parl-o
     2sg   ø parl-i
     3sg   ø parl-a
     1pl   ø parl-iamo
     2pl   ø parl-ate
     3pl   ø parl-ano

Third, there are no known tense forms where null subjects are disallowed, or allowed only in particular person-number combinations.

Fourth, an overt pronominal subject in any person triggers some sort of contrastive or exhaustive interpretation, which is informally interpreted by speakers as a way of emphasis like the ones that we revised in §2.3. Like this, in a sentence like the following, the null subject requires Gianni to be also the person that finished training, while the overt subject version with a pronoun is at least compatible with a reading where the person that finished training is someone else –or with a reading where Gianni is the person whose training, in contrast to other potential participants, determines when the dinner could start–.

(214) a. Gianni ha cenato quando ø ha finito di allenarsi.
       Gianni has dined when ø has finished of training
   'Gianni$_i$ had dinner when he$_i$ finished training'
   b. Gianni ha cenato quando lui ha finito di allenarsi.
       Gianni has dined when he has finished of training
   'Gianni$_i$ had dinner when he$_{i/j}$ finished training'

Fifth, cross-linguistically, these languages typically have rich inflectional systems, with the caveats and provisos that were discussed in §2.3 above. As can be seen in the conjugation of the present indicative of *parlare*, each one of the person-number combinations is morphologically identified by different endings.

4.1.4. Discourse pro-drop languages

The fourth and last identified type of null subject language receives the name of 'Discourse pro-drop' or 'Radical pro-drop' language. Unlike the three types of languages that we have seen so far –expletive, consistent and partial pro-drop languages–, no grammatical divide is established between types of subjects and virtually any class of expression in the subject position can be null, provided that –in general terms– the discourse situation allows their identification. Typically, languages that have been classified in this group are languages with a very reduced inflectional system where agreement is not present, such as Chinese, Japanese or Vietnamese (Huang 1984, Rizzi 1986). Therefore, these languages have a type of null subject whose reference is retrieved through discourse principles, with at least the possibility that grammatical information is not involved in this type of operation. The following example, taken from Huang (1984: 533), illustrates this type of language:

(215) Speaker A: Zhangsan kanjian Lisi le   ma?
              Zhangsan see   Lisi LE   question
   'Did Zhangsan see Lisi?'
   Speaker B: ø kanjian ta le.
              ø see   he LE
   'He saw him'

Note that, in contrast to other examples provided, here we had to introduce a question-answer pair. The reason is that in principle Radical pro-drop languages do not introduce grammatical restrictions to null subjects per se, but they do still have discourse restrictions that determine under which conditions the subject can be null – specifically, when the speech situation licenses its recovery–.

Lack of agreement has been taken as the main characterising property of radical pro-drop languages (Biberauer et al. 2010, Frascarelli & Carella 2024), in essence because otherwise the distribution of null subjects is not necessarily different from the one noted with Consistent null subject languages, in the sense that no distinction between expletives and argument subjects, or between participant and 3rd person subjects, is made. These languages are different, then, due to the recovery procedure that they are assumed to follow for null subjects, which may in turn mean that their null subjects have a different theoretical status than those of expletive, partial or consistent null subject languages. For the different options involved in these cases, see §8.

The languages that belong to the Discourse pro-drop class have been argued to be topic-oriented, which is another way to characterise the distribution of null arguments: provided that the referent is a topic –that is, an entity activated in the discourse–, it can be null. An additional property that is sometimes invoked for these languages is that they allow null arguments not just on the subject function, but also as objects of any type.

4.1.5. What cross-linguistic class does Spanish belong to?

The traditional account of Spanish null subjects is that the language belongs to the set of Consistent null subject languages, together with Italian and Greek as prototypical examples of the class, and in contrast with French or English as overt subject languages. The overview that we provide in §2 and §3 seem to confirm this diagnostic, at least if we focus on the set of properties that the literature has so far identified as characteristic of Partial null subject languages, in contrast to the Consistent ones. Note that in this section I am talking about the varieties whose behaviour was presented in §2 and §3: as we will see in §4.2 there are other varieties with different behaviours that, in this case, are arguably instances of Partial null subject languages.

Consider first the possible differences between 1st and 2nd person null subjects, on the one hand, and the 3rd person null subjects. We noted, among other things, that overt subjects in contexts where null is possible is restricted to animate (human) referents:

(216) {La mesa$_i$ / Juana$_j$} está afuera. ø$_{j,*i}$ es demasiado grande para entrar.
     the table / Juan is outside. ø is too large to enter.
     '{The table / Juana} is outside. She (=Juana) is too large to come in'

In principle, one could view this as a reason to think that Spanish differentiates between participant and non-participant pronouns in a way similar to what Finnish does. However, there are two reasons not to take this contrast as a sign that Spanish should be classified as a Partial null subject language. The first is that the restriction does not limit the contexts where null 3rd person subjects can appear, as in Finnish: rather the opposite, the contrast sets a constraint on cases where overt pronoun subjects can appear. What is restricted, then, is not the possibility of having null subjects.

Second, this contrast does not automatically imply that 1st and 2nd person pronouns are subject to different licensing conditions with respect to 3rd person ones. In both cases, the result is that the overt pronoun in a context where null subjects are available is interpreted with an animate (human) reading. Participant pronouns by definition satisfy this requisite without the possibility of carrying the opposite non-animate value, because the speaker and the addressee must always be considered human for the purposes of the speech situation.

The question of whether Spanish truly requires overt subject expressions in generic contexts, as we already discussed, is more problematic, as it requires analyses of

impersonal *se* and generic *uno* where these are necessarily subject pronouns that somehow are required for generic marking. However, the fact stays that in a sentence like the following, where there is no overt expression that can play the subject role, the generic reading is not allowed:

(217) No ø puede   fumar aquí.
  not ø can.3sg to.smoke here
  'He / She / You (polite) cannot smoke here' (not 'Smoking is not allowed here')

Thus, if anything, we know at least that the complete absence of an overt expression in the area where preverbal subjects are expected to appear blocks the generic reading, in accordance to the current description of Consistent null subject languages.

Moving now to the complement of propositional attitude verbs, remember that Holmberg et al. (2009) note that Partial null subject languages, like Brazilian Portuguese, allow an overt embedded subject to be coreferential to the attitude holder without focalisation, in contrast to Consistent languages. Remember from §3.1 above that Spanish does not allow this, again if there is no independent focalisation of the overt subject pronoun:

(218) Luisa$_i$ cree que ella$_{j,*i}$ está enferma.
  Luisa thinks that she is sick
  'Luisa thinks that she (=someone else) is sick'

Also, partial null subject languages require the pronoun to be overt in the same syntactic context when reference to an entity distinct from the attitude holder is required. A consistent null subject language, in contrast, allows in this particular context disjoint reference with the attitude holder, provided that the referent is accessible enough in the discourse situation. Again, Spanish behaves as expected from a Consistent null subject language from this perspective. In a context where I ask my interlocutor what she knows about Susana, the following sentence can mean that, according to Luisa, Susana is sick.

(219) Luisa$_i$ cree que   ø$_j$ está enferma.
  Luisa thinks that she is sick
  'Luisa thinks that she (=Susana) is sick'

Finally, with respect to verbal inflection, we have already seen in §2.4 that some verbal tenses exhibit a syncretism between the 1sg and the 3sg, which may be taken as a sign of partial impoverishment. However, in that section we showed that there are many other indicative tenses where the 6 person-number combinations are identified with distinct verbal morphemes, and moreover that the null vs. overt contrast behaves in the same way also in the syncretic tenses. Consequently, and despite the fact that 'richness' of morphology is not well-defined in the literature, there are no real reasons to think that Spanish verbal morphology is impoverished enough to classify it as a null subject language.

The preliminar conclusion, then, is that the general varieties of Spanish described in §2 and §3 are Consistent null subject languages. There is an important caveat, though: as we have highlighted in this section, what counts as Partial is for the time being based on a relatively small set of languages. A broader typological examination in the sufficient detail may show that there are additional, more subtle, properties of Partial

null subjects which may (or may not) apply to Spanish. Therefore, the conclusion that Spanish is a Consistent null subject language is based on the current available information at the moment in which this article is written, and could change in the future.

The typological conclusion that I have just presented is based on the description of the varieties that are sometimes called 'general Spanish', whose definition is very unclear and tends to correspond to Peninsular Central Spanish. However, the literature has identified different properties for the null vs. overt subject contrast in other varieties, mainly in America. The next section will present those facts, and repeat the typological question: are these varieties Partial null subject languages?

4.2. Internal variation of Spanish null subjects

Restricting ourselves to contemporary varieties, there are several phenomena that have been noticed and which modify the distribution of null subjects with respect to what has been presented in the previous two sections. In general, the variation phenomena that have been studied most refer to Caribbean Spanish, where it has been argued from different perspectives that there is an ongoing shift that is moving those varieties from Null subject languages to Overt subject languages.

4.2.1. Expletive subjects

As we have already seen (§4.1), the compulsory expression of expletive subjects as null subjects is considered in principle the most basic sign that a language is pro-drop in some way. This has the analytical consequence that current Spanish varieties where there is evidence of overt expletive pronouns in subject position are considered, in principle, varieties which completely lack pro-drop.

The variety where most of the research on this area has concentrated is Dominican Republic Spanish (Patín Maceo 1947, Silva-Villar 1998, Toribio 2000, Martínez-Sanz 2007, 2011; Hinzelin & Kaiser 2007, Otheguy, Zentella & Livert 2007, Bullock & Toribio 2008, Cabrera 2007, Kaiser 2009, Saab 2009, Camacho 2010; Muñoz Pérez 2014, among others), in particular the Cibeño (Cibao) variety. Martínez-Sanz (2011) documents overt expletive subjects in all relevant contexts:

(220) a. Weather predicates
          Ello no está lloviendo.
          it   not is   raining
     'It is not raining'
     b. Existential constructions
          Ello hay sillas.
          it   is chairs
     'There are chairs'
     c. Postverbal subjects with unaccusatives
          Ello casi   no ha pasado ni un vehículo.
          it   almost   not has passed no a vehicle
     'Almost no vehicle has passed'

It is important to note, however, that in Dominican Spanish, in contrast to English or French, the expletive subjects are optional, and the null subject version of each one of the sentences mentioned above is also grammatical for the speakers consulted by those that have researched the issue, some of whom are speakers of the relevant variety as well.

Martínez-Sanz (2011: 65), citing personal communication from Toribio, argues that these preverbal overt expletives are indeed syntactic subjects, in contrast to a second conceivable analyses which has been applied to some of the overt expletives identified in Old Spanish, which have been defined as extraposed discourse topics: as can be seen in (221), the overt expletive is ungrammatical when it appears to the left of an overt argumental subject pronoun:

(221) *Ello   yo   no   sé por qué mi papá me puso   Almeida.
      it   I   not   know for what my dad me called Almeida
      Intended: 'I don't know why my dad named me 'Almeida''

Camacho (2013: 47) documents also expletive subjects in Central Colombian Spanish, specifically when the expletive is associated to an overt postverbal clause:

(222) ¿Eso no le parece que Gloria debe descansar?
      that not you seems that Gloria should rest?
      'Don't you think that Gloria should rest?'

4.2.2. Referential subjects

Another repeated observation is that, not only Dominican Republic Spanish, but also other Caribbean varieties, display a higher percentage of overt pronominal referential subjects than the rest of varieties (Navarro 1948, Morales 1986, Suñer 1986, Perl & Schwengler 1998, Toribio 2000, Ticio 2004, 2018, Gutiérrez-Bravo 2008, Martínez-Sanz 2011, Camacho 2013, Comínguez 2013, Abreu 2018, among others).

With the asymmetries that were noted in §2.3 above across person-number combinations, most studies from a variationist perspective have estimated a quite low proportion of overt pronominal subjects in Peninsular Spanish: Enríquez (1984) estimates it in 21%, just like Cameron (1992) –both in Madrid–; de Prada (2009), for Valladolid, only finds 12%, while Miró Vera & Pineda (1982) find a higher rate of 27% in Sevilla.

Caribbean varieties, in contrast, show a much higher proportion of overt subjects. In Puerto Rico, Cameron (1992) –San Juan– identifies 45%, which increases to 60% in Cameron (1996), followed by Ávila-Jiménez' (1995) 40% –several municipalities–, Claes' (2011) 39% –San Juan–, Abreu's (2018) 38% –Isabela–, and several studies that range between 35% (New York Puerto Ricans) and 28% (Castañer) (Flores-Ferrán 2002, Holmquist 2012). The results can also be extended to Mainland Caribbean: Travis (2007) compares the rate of overt subjects among New Mexico speakers and Coastal Colombian and shows that the latter have consistently higher rates of overt subjects; Cali, Colombia, rates an impressive 48% in Travis (2007), and Bentivoglio finds 40% in Caracas, Venezuela.

As an illustration, the following example, from Puerto Rico, is taken from Morales (2007). It shows that the 1sg pronoun may appear overtly realised without any contrastive role at all:

(223) Yo no pude estar allí, yo oí la gritería, pero yo estaba en mi oficina.
      I not could be there, I heard the shouting, but I was in my office
      'I couldn't be there; I heard the shouting, but I was in my office'

Needless to say, a higher proportion does not mean that the language has ceased to be a pro-drop language, although it may mean that it is moving to a less consistent pro-

drop language. To the best of my knowledge, no syntactic context where a null subject is possible in Peninsular Spanish but not in Caribbean Spanish has been identified: what is identified is a statistical tendency that shows that, while speakers in principle can choose a null subject strategy, they go for the overt pronoun. This has as a natural consequence that some of the semantic and pragmatic restrictions that determine the distribution of overt and null subjects are suspended in these varieties. Let us see two such examples, and leave the observations about other associated phenomena for the next section.

As noted in §2.3.1, in most varieties an overt subject cannot act as a bound variable, unless focalised. Only the first of the two sentences in the following example may be interpreted in the bound reading 'No person x believes that x will win the lottery':

(224) a. Nadie piensa   que   ø   va a ganar la lotería.
        nobody thinks that   ø   goes to win the lottery
    'Nobody thinks that he will win the lottery'
    b. Nadie piensa   que   él va a ganar la lotería.
    nobody thinks that   he goes to win the lottery
    'Nobody thinks that he will win the lottery'

Gupton & Lowman (2013), in contrast, note that in Caribbean Spanish the sentence with the overt pronoun allows the variable reading, in addition to the reading where the belief is that some specific referent will win the lottery. The most restrictive of the two sentences, in fact, is the one with the null pronoun, which according to Gupton & Lowman's (2013) informants, cannot have the specific subject reading in this context.

(225) Nadie$_i$ piensa que $\{ø_{i, *j} / ø_{i,j}\}$ va a ganar la lotería.
    nobody thinks that   ø   / ø   goes to win the lottery
    'Nobody thinks that he will win the lottery'

Secondly, we have seen (§2.2.2) that 3rd person overt pronominal subjects in most varieties of Spanish trigger an animacy reading which blocks them when the subject is not animate. In Dominican Spanish, in contrast, overt inanimate pronouns have been documented (Jiménez Sabater 1975, Bullock & Toribio 2000):

(226) a. Ella [=the van] tiene gasolina.
        she   has petrol
    'It has gas'
    b. Pero ella [=the lagoon] antes estaba llena, sí.
        but she   before was full, yes
    'But it was full before, yes'.

With respect to the causes of this drift, it has been proposed that one of the external factors that may be influencing this shift is contact with English, which enjoys a high social status in the region. It is unclear, however, that the predictions that this theory makes –namely, that being exposed to English itself will increase the rate of overt subjects– are confirmed by the facts: Hochberg (1986) studies Puerto Ricans in Boston and finds a rate of 36%, which is comparable to the one found for speakers living in Puerto Rico. If the English influence was decisive, one would expect an increase. It is true, however, that heritage speakers living in the US show increased proportions: Otheguy, Zentella & Livert (2007) interview newcomers to New York from Mexico,

Colombia and Ecuador, and, at the same time that they documented significant differences between them, they estimate in 24% the rate of overt subjects (comparable to Sevilla), but with their 6 Mexican speakers rating only at 19%. In contrast, Silva-Corvalán (1982) finds a rate of 35% for Los Angeles Spanish. It is unclear, however, whether this is not an effect of the heritage status of the language itself, where perhaps a reduced exposure to the language triggers a lower rate of null subjects as a processing strategy.

Another problem for the claim that Caribbean Spanish is moving to a non-Pro-drop status due to the sole influence of English is that other studies have identified high rates of overt subjects in varieties of Spanish from different regions, where the geographical proximity to the US does not play a role. Barrenechea & Alonso (1977) find 36% for Buenos Aires and Cifuentes (1980) finds 38% for Santiago de Chile, in both cases above the general data found for Peninsular Spanish.

If English is not playing a decisive role in this change, the other alternative is that there is a tendency for Null subject languages to become Overt subject languages with time, an observation that has been made in the literature for different languages (Holmberg 2010, Saab 2016, Madariaga 2018). In this process, morphological loss, favouring preverbal subjects and other factors may be playing language-internal roles that do not require the explicit influence of an overt subject language.

4.2.3. Specific indefinite impersonal contexts

We have also seen that in the specific indefinite impersonal structures, where the 3pl inflection is used to predicate from an unidentified existential, most varieties of Spanish block overt subjects. Remember that in the following examples, the reading of 'Someone is knocking at the door', versus a specific 'They are knocking at the door' is only allowed if the subject is null (§2.2.4):

(227) a. ø   llaman a la puerta.
　　　　　 ø   knock at the door
　　　'Someone is knocking at the door'
　　 b. Ellos llaman a la puerta.
　　　　 they   knock at the door
　　　'They are knocking at the door'

Some Spanish varieties show instances of the arbitrary reading stands even though an overt pronominal subject is present; Lapidus & Otheguy (2005) find it in New York bilingual speakers, and Martínez-Sanz (2011) documents cases from Dominican Republic speakers where the relevant unidentified existential use is found with overt 3pl subjects, such as the following (2011: 27):

(228) Me hicieron cartas de recomendación algunos ortodoncistas, y tuve suerte que me ø aceptaron [en una universidad argentina para hacer un postgrado]. Porque ellos aceptan diez por promoción; las promociones entran cada dos años, entonces ellos aceptan a diez, y de esos diez siete son argentinos y tres extranjeros, y ø aplican de todos lados, o sea que tuve suerte.
　　'Some orthodontists wrote me recommendation letters, and I was lucky they accepted me [as a graduate student in an Argentinian university]. Because they accept ten students per class; new classes enter the program every two years, and then they accept ten students, among those ten students seven are Argentinian and three are foreign, and they get applications from everywhere, so I was lucky.'

It is clear that in the example above the speaker is not talking about a specific group of people, but about the unidentified referent or referents that are responsible for accepting students into the program.

4.2.4. Overt subordinate subjects

There are three main phenomena that show that Caribbean varieties allow overt subjects in more contexts than the varieties described in §2 and §3. The first one is common to finite and non-finite clauses. We saw in §3.1 above that when both subjects are overt pronominals in a complex sentence, the interpretation is one of disjoint reference. In for instance Peninsular Spanish, the first sentence is interpreted with coreferential subjects, while in the second –excluding focalisation– the two referents are distinct.

(229) a. Cuando Juan$_i$ trabaja,   ø$_i$ no bebe.
         when   Juan works   ø   not drinks
      'When Juan works, he (=Juan) does not drink'
     b. Cuando Juan$_i$ trabaja,   él$_{j/*i}$ no bebe.
         when   Juan works   he   not drinks
      'When Juan works, he (=someone else) does not drink'

Caribbean varieties allow both, but the second is compatible with coreference even in the absence of focalised readings (Suñer 1986, Morales 1988, Camacho 2008, Martínez Sanz 2011, Ticio 2018).

(230) Cuando Juan$_i$ trabaja,   él$_{j/i}$ no bebe.
      when   Juan works   he   not drinks
      'When Juan works, he (=Juan or someone else) does not drink'

The following example is taken from Ticio (2018: 93).

(231) Al estar ella$_i$ trabajando, María$_i$ no podrá venir el viernes.
      at-the to.be she working, María not will.can come the Friday
      'As she (=María) is working, María will not be able to come on Friday'

This extends to the complement position of propositional attitude verbs (again, exclude focalisation of the overt subject).

(232) María$_i$ dice que ella$_i$ está enferma.
      María says that she is sick
      'María says that she (= María) is sick'

Secondly, remember that, with very few exceptions, overt infinitival subjects in Spanish are compulsorily postverbal, if at all allowed. Unless prepositions like *con* 'with' and *sin* 'without' introduce the non-finite clauses, the overt subject is confined to a postverbal position:

(233) a. Yo   ya   estaba antes de   llegar tú   aquí.
         I   already was.1sg before of   to.arrive you here
      'I was already here, before you arrived'

b. Yo   ya   estaba antes de   tú   llegar aquí.
   I   already was.1sg before of   you to.arrive here
'I was already here, before you arrived'

The second sentence, which is strictly unacceptable in Peninsular Spanish, is however acceptable in Caribbean varieties (Morales 1986, De Mello 1995, Zagona 2002), as well as in other varieties that are not strictly characterised as making a broader use of overt pronouns, including México, Perú and River Plate Spanish (RAE & ASALE 2009: §26.7h-j). The following example, from Puerto Rico, is taken from Brown & Rivas (2011).

(234) si aquí hay   recao   pa' yo hacer sofrito.
     if here there.is   cilantro   to I to.make sauté'
     'Here there is cilantro so I can make sauté'

Third, remember that even in the postverbal position, the overt infinitival subjects are more marginal in non-adjunct clauses, such as direct object and subject nominal subordinate clauses. Even though less frequently documented, overt preverbal subjects have also been found in Puerto Rico (Aponte Alequín & López 2015):

(235) a. ...el director dice él tener ya todo seteado.
        the director says he to.have already all ready
    '...the director says that he already has everything set up'
    b. Es importante nosotros como pueblo entender todo lo que conlleva.
       is important we as people to.understand all it that entails
    'It is important for us as a nation to understand everything it entails'

4.2.5. Other related phenomena

As we noted in §1.2, null subjects have been related to other properties that do not obviously involve a contrast between the overt and non-overt expression of subjects. This section briefly overviews to what extent other varieties of Spanish differ in these properties.

Remember that the possibility of having free inversion between subject and verb has been identified in previous research as a null subject language property, with the most extended analysis being that the canonical preverbal subject position hosts a null pronoun which allows the overt argument to remain within the VP (Rizzi 1982). The following sentence shows this possibility; note that there are clear information structure differences with respect to the preverbal order, so 'free' must be interpreted with a grain of salt.

(236) a. Dijo eso mi madre.
        said that my mother
    'It was my mother who said that'

While all varieties of Spanish allow inversion in this sense, it has been noted that SV orders are more frequent, and in some cases perceived as compulsory. With respect to the first, Ortiz López (2009) notes that the proportion of preverbal subjects is extremely high in Cuba, the Dominican Republic and Puerto Rico: more than 80% of the data collected in this work exhibit preverbal subjects. Bullock & Toribio (2009) show, for

Dominican Spanish, that the postverbal object is only preferred with some specific types of predicates which favour a presentational reading of the subject, such as *haber*:

(237) Habemos   pocas familias en Los Compos.
        we.are   few families   in Los Compos
        'We are few families in Los Compos'

These authors for Dominican Republic, and Ticio (2018) for Puerto Rican Spanish, show that this is a preference. However, at least for Puerto Rican Spanish absence of inversion in interrogative clauses seems to be compulsory. The following examples have been documented in different Caribbean varieties (cf. Henríquez Ureña 1940, Davis 1971, Lipski 1977, Núñez Cedeño 1983, Morales 1999, Gutiérrez-Bravo 2008, Comínguez 2013, Zimmermann 2019, among many others), and show lack of inversion even with partial questions:

(238) a. ¿Dónde tú has dejado los espejuelos?
        where you have left the glasses?
     'Where have you left the glasses?'
     b. ¿Qué tú haces?
        what you do.2sg?
     'What are you doing?'

It has been noted that pronominal subjects resist inversion to a higher degree than nominal subjects (Comínguez 2013), and that within pronouns the second person pronoun *tú* 'you.sg' is particular resistant to the postverbal order. Cases where it has been claimed that native speakers reject the inverted clauses, as in (239) below, are typically of 2sg pronominal subjects.

(239) %¿Qué haces tú?
       what do.2sg you?

However, as noted in Lipski (1977), all pronouns are documented without inversion in some context, and both Lantolf (1980) and Toribio (1993) document cases with noun phrases.

In contrast, I am not aware of any reports that the that-trace effect is found in the Caribbean varieties. Remember from §1.2 that the that-trace effect is the ungrammaticality of sentences where a subject has been extracted from a subordinate object clause, with an overt complementiser. Spanish lacks this effect, and as such that structure is grammatical, in contrast to the English literal translation:

(240) a. ¿Quién$_i$ dices   que *t*$_i$ vendrá?
        who   say.2sg that t   will.come.3sg?
     'Who do you say will come?'
     b. *Who$_i$ do you say that *t*$_i$ will come?

Remember also that, via Rizzi's (1982) account, the relation with null subject languages is based on the idea that in these languages the subject position may contain a null pronoun, not a trace of movement. Ticio, however, reports that at least for Puerto Rican Spanish (240a) is still grammatical. Note, once again, that if Rizzi's account is

on the right track, this effect is expected to the extent that none of the Caribbean varieties completely rejects null subjects in all contexts.

To conclude this overview, remember that being a Consistent null subject language is related since Taraldsen (1978) with the presence of a rich inflectional system where at least as many distinctions between agreeing forms are made as contrasts the pronominal system expresses. A common observation in studies that discuss those varieties where a higher proportion of overt subjects are found is that, with respect to Peninsular Spanish, the inflectional system has neutralised some overt distinctions.

For starters, most American varieties have neutralised the agreement opposition between the 2pl and the 3pl in all tenses, given the use of ustedes 'you.pl' as the only 2pl pronoun.

(241) 1sg   (yo)   cant-o
       2sg   (tú)   cant-a-s
       3sg   (él)   cant-a
       1pl   (nosotros) cant-a-mos
       2pl   (ustedes) <u>cant-a-n</u>
       3pl   (ellos)   cant-a-n

Second, different changes, mainly triggered by phonological changes, have blurred the rest of the forms. The word final /s/ has been phonologically reduced or lost in most American varieties (Andrade 1930); particularly, in the Caribbean it has been completely lost and variationist studies report that it only survives as an aspiration among the higher social strata (Henríquez Ureña 1940, Lipski 1977, Terrell 1982). Additionally, the word final nasal becomes weakened in most oral varieties, with the Caribbean area again standing out as the one where the nasal gets elided in most contexts (via previous velarisation; see Terrell 1975, López Morales 2005, Casado Fresnillo 2024). Once the two changes culminate, one obtains the paradigm that follows in the present indicative, which makes fewer distinctions than, for instance, German, and is comparable to the number of distinctions in Modern French:

(242) 1sg   (yo)   cant-o
       2sg   (tú)   cant-a
       3sg   (él)   cant-a
       1pl   (nosotros) cant-a-mo
       2pl   (ustedes) <u>cant-a</u>
       3pl   (ellos)   cant-a

This impoverishment of inflection is expected to correlate with a drift towards an overt subject language, but remember again that no Spanish variety has been reported where null subjects are radically excluded from any syntactic context.

4.2.6. Do these varieties belong to the Partial null subject language class?

Let us pose again the question of whether these varieties are Partial null subject languages, according to the existing classification that was presented in §4.1 above. In the case of Brazilian Portuguese, as we have seen, some of the properties identified in this overview have been associated to a Partial null subject status (see also Costa 2024). In particular, the behaviour of null and overt subjects in the complement position of propositional attitude verbs suggests that the languages may be close to the Partial null subject class.

Remember that in a Partial null subject language, according to Holmberg et al. (2009), the overt pronominal subject can refer to the holder of the propositional attitude verb. We have seen that in Caribbean varieties in particular there is ample evidence that this is also the case, as in the following example that we repeat for convenience:

(243) María$_i$ dice que ella$_i$ está enferma.
      María says that she is sick
      'María says that she (= María) is sick'

The Partial null subject language behaviour also requires that the overt subject is necessary to pick a referent that is distinct from the attitude holder. I have not been able to find testimonies that exclude a disjoint reference reading of the following type of sentence, however –the literature focuses rather on the absence of a contrastive effect with the overt subject–. If these varieties follow the pattern of Brazilian Portuguese, the coreference possibilities should be as they are marked in the example, excluding disjoint reference:

(244) María$_i$ dice que ella$_{i,*j}$ está enferma.
      María says that she is sick
      'María says that she (= María, not anyone else) is sick'

Secondly, we have seen that there are some claims that some particular pronominal subjects behave, when overt, differently from others in several contexts –for instance, the claim that *tú* 'you.sg' resists inversion to a greater extent than other pronominal forms–. However, this does not exactly fit with the Partial null subject characterisation in several respects: the cut is not absolutely between participant pronouns and non-participant pronouns, data involving all pronouns (and some cases of noun phrases) are found under the same conditions, and moreover the contrast seems to be a tendency rather than an absolute requisite.

There is no evidence that I have been able to identify making for instance 3rd person subjects be overt in more cases than participant subjects. I have not been able to find, either, any reports that these varieties where overt subjects are more abundant allow the generic interpretation of sentences like this:

(245) No ø puede   fumar aquí.
      not ø can.3sg to.smoke here
      'He / She / You (polite) cannot smoke here' (not 'Smoking is not allowed here')

Also, note that some of the differences with Peninsular Spanish exhibited by Caribbean (and Central Colombian) varieties is that expletive subjects can be overt. This is not part of the description of a partial null subject language at all, but rather a sign that the language allows (does not force) overt subjects in all contexts.

The conclusion that these varieties are undergoing change to a Partial null subject type is not granted by the available data, it seems to me. The data do not seem compatible even if the variability that these systems show is interpreted as a sign that the change is still in progress and has not yet culminated in a prototypical Partial null language grammar. If anything, the availability of overt expletive subjects may indicate that these varieties could be evolving into overt subject languages of the French or English type, including overt expletive subjects.

Note that, even if one provides a typological hierarchy where different types of null subject languages display a subset relation, one should not automatically expect that drift from one class to another must necessarily involve passing first through the intermediate stages. In other words, we can assume the typological hierarchy proposed in Biberauer et al. (2010), which is reproduced again in (246), without committing to the claim that they represent stages of diachronic change.

(246) (overt subject language) < expletive null subject < partial null subject < consistent null subject < discourse pro-drop

Taking the classes as stages in a natural diachronic evolution is only a prediction on some particular theories about variation where the features that make one grammar available depend on features that make another one available, as it is the case in Biberauer et al. (2010). We will get back to this question in §5.3.

Let us finish this section here, and move to the presentation and discussion of the different theories of null subjects in the next section.

5. Analyses of Spanish null subjects: background questions

This section starts the revision of the main theoretical proposals about null subjects in the languages of the world. Note, however, that the historical evolution of the concept of 'null subject language' has as a consequence that in some cases the theories that will be presented here are formulated not for the specific case of Spanish, although they often have the ambition to be applicable not only to the specific languages that they were originally stated for.

As we will see, all current theories have as their main ingredient the proposal that the verbal inflection is characterised by different properties in null subject languages and in languages that do not license them. From here, there are different ways in which the difference is specified, something that has immediate consequences for the nature of the null subject and the position that overt subjects occupy in the clause.

In general, all proposals say something about these three questions, which I list for ease of exposition:

i) Are sentences with overt subjects syntactically identical in a null subject language and in a language that does not license null subjects?

ii) Do null subjects correspond to a defective nominal constituent that has to be somehow licensed by a clausal node, or are null subjects 'normal' nominal constituents which do not get a phonological manifestation?

iii) Which is the specific property of verbal inflection that allows null subjects?

As I say, the three questions are tightly intertwined. The first one divides theories in those that propose that null subject languages allow overt pronouns to be merged in spec, TP –the canonical subject position– and those that ban it, and instead propose that a preverbal subject is in fact a topic or a focus. The second one differentiates between theories where null subjects are defective nominal constituents –where the defectiveness may be expressed in different ways– and those which treat null subjects as identical to overt ones, simple pronominal expressions that happen not to have a realisation in the phonological component. The third one offers more options, which go from the idea that inflection in null subject languages is pronominal to the idea that the inflectional node has enough featural content to complete the information that a null subject is missing.

As any theory typically touches upon these three questions, in what follows I will divide the presentation in four parts. In this section, I will provide the background information that was invoked to establish the classical Chomsky (1981) account of null subjects as an empty category, which almost all current proposals dialogue with. I will focus on §6 on the evidence for and against the claim that Spanish overt subjects are never in spec, TP. In §7 I will present different theories about the defectiveness of null subjects, focalising in two which particularly concentrate on this aspect of the analysis –although they obviously also make claims about the other two questions–. In §8 I present other theories which differ with respect to what property of verbal inflection licenses null subject, divided into those which assume a syntactic difference for these structures and those that treat them as syntactically equivalent to a subject-predicate structure in a language like English.

Before looking in some detail within each group of theories, there are some general background concepts and proposals that will be useful to properly understand the specific approaches. I start with an overview of the classical theory in Perlmutter (1968), which assumes syntactic identity between null subjects and overt subjects and proposes that the differences are phonological. Also relevant in general is the question of whether null subjects are allowed by a parameter, and in that case which type of parameter, which I review in §5.2 –for the traditional parametric view– and in §5.3 – for the microparametric view–. The possible role of morphological richness in allowing null subjects is reviewed in §5.4, where a significant distinction between the licensing and the identification conditions of the null subject is made. Finally, with respect to the pragmatic effects of overt subjects, §5.5 will present Montalbetti's (1984) Overt Pronoun Constraint.

5.1. Perlmutter's filter account

Within the generative tradition, the discussion of null subjects is initiated in Perlmutter (1968: 202-240), which I already advanced in §1 above.

Perlmutter's discussion is framed within a general discussion of surface filters in grammar. Remember that a filter is a constraint on possible outputs; differently from rules or operations, a filter does not define a relation between an input (say, one structure) and an output (another structure), but sets some limits to the types of outputs that are valid within a language. Unlike rules, filters are typically defined as negative contraints of the form 'The output cannot have X' or 'The output cannot be X'. The architecture of grammar assumed when Perlmutter wrote his dissertation started with a rough semantic representation (Deep structure, later on D-structure) and proceeded through rules (syntax) to a surface phonological representation, and the filters would apply late, on the so-called Surface structure (later on, S-structure). Perlmutter (1968) proposes that the difference between languages that allow null subject and those that do not is the effect of a filter which the latter have, but the former lack, therefore indicating that he considered null subject languages to be the unmarked member of the set –on the assumption that the metric to decide which grammar is best compatible with the data always favours those with the least number of rules and constraints–.

Perlmutter (1968) starts with the cases that would later on be known as that-trace effects. He notices that in French asking for the subject of a subordinate clause, or relativising it from the same context, gives ungrammatical results. Anachronically, I represent traces for clarity; note that these are not present in the original text:

(247) a. Qui$_i$ a-t-il dit que Martin avait envie de mordre t_i?
  who has-T-he said that Martin had liking of biting t?

'Who did he say that Martin felt like biting?
b. *Qui_i a-t-il   dit   que t_i s'est évanoui?
   who has-T-he   said   that t has fainted?
'Who did he say fainted?' (cf. *_Who did he say that fainted?_)

(248) a. la speakerine_i qu'il a dit que Martin avait envie de mordre t_i
        the speaker   that he has said that Martin had liking of to-bite
'the announcer that he said that Martin felt like biting'
b. *la speakerine_i qu'il a dit que t_i s'est evanouie
    the speaker   that he has said that t has disappeared
'the announcer that he said has disappeared' (cf. *_the announcer that he said that has disappeared_)

He proposes that this is the effect of a surface constraint, which is stated as follows (1968: 204):

(249) Any sentence other than an imperative in which there is an S (=sentence) that does not contain a subject in surface structure is ungrammatical

Note three properties here: the constraint is a filter on the surface structure, not the effect of a rule, the filter is defined negatively (what a sentence cannot look like in these languages) and imperatives are excluded. The reason for that is that French, like English, allows the imperatives not to have overt subjects:

(250) Mange!
   eat!
   'Eat!'

The structure before applying the transformation that produces interrogatives or relative clauses contains an overt subject in the subordinate clause (_Il a dit que <u>la speakerine</u> s'est evanouie_). However, the result after the transformation removes the (overt) subject from the subordinate clause, and the filter marks that output as ungrammatical.

The discussion of null subjects is only introduced after this proposal (1968: 206), where French and Italian are compared:

(251) a. *Avons   travaillé toute la journée.
        have.1pl   worked all the day
   Intended: 'We have worked all day long'
   b. Sono qui.
      am   here
   'I am here'

The implicit assumption that Perlmutter (1968) makes in his account is that the null subject in Italian (and Spanish) becomes null because it has been deleted at the surface level (see, for instance 1968: 207). This is consistent with his treatment of the phenomenon as a surface filter on the output: the contrast between languages that allow or disallow null subjects is not a matter of the rules that the language contains, or the availability of special lexical items (like _pro_ in later theories), but of whether a deletion operation can apply late in the derivation or it is blocked in some cases due to the filter. He in fact explicitly denies that the expletive pronoun cases can be accounted for

through a specific transformation that introduces a subject late in the derivation, irrespective of the argument structure requisites, which French would have and Spanish would lack (1968: 209-210).

(252) a. Il pleût.
   it rains
  b. %Ello llueve
    it rains
  'It rains'

In Spanish, the expletive subject is not required simply because the verb already lacks a subject at the deep structure, with the result that there is no subject at any point of the derivation. The same hold for French, except that in this case the filter forces to introduce a dummy subject at surface structure, as a last resort (1968: 211).

Perlmutter (1968: 215) discusses also the case of English, which he does not immediately treat on a parallel to French. Noting that the deletion of the complementiser saves grammaticality in English, but is impossible in French, he considers the possibility that what makes **Who do you think that disappeared?* ungrammatical in English is that a compulsory rule has not been applied: perhaps there is a that-deletion transformation in English that must apply whenever the complementiser is immediately followed by the VP. However, he discards that possibility because he finds examples where the that-deletion rule should apply but it cannot:

(253) a. Clyde allowed that Henrietta likes spumoni.
  b. *Clyde allowed Henrietta likes spumoni.

Having discarded that alternative account, he concludes –by elimination– that the ungrammaticality of **Who do you think that disappeared?* in English means that this language also has the filter that French has, explaining thus the need to have expletive subjects and overt referential subjects.

But then, what happens in the sentence when that-deletion has occurred?

(254) Who do you think ø disappeared?

Note that the filter sets a condition on the material dominated by S, the label for a sentence. If the context is not defined as S, then the filter does not apply: Perlmutter (1968: 219) proposes in fact that the deletion of *that*, when possible, has an effect the pruning of the S node that dominates both subject and predicate –in other words, once *that* is deleted, the material that it dominated before ceases to be a sentence of its own. Therefore, the filter does not apply.

5.2. The classic parametric view

Perlmutter's filter account was progressively abandoned during the 70s, and at the early 80s it was substituted with a parametric view. There were two main reasons for this: on the one hand, the generative enterprise changed in scope, moving from seeing grammars as rich systems of rules and surface constraints to a view where grammars are the particular instantiations of a reduced set of universal principles. On the other hand, the fact that Perlmutter's filter had to single out imperatives and the observation that some languages allowed only some null subjects (Expletive null subject languages,

remember §4.1.2) made it less plausible that a surface constraint was enough to capture the existing patterns.

It is in this context that the Null subject parameter is first proposed (Rizzi 1979, 1980). The parameter, that adopts the name of Pro-drop Parameter in Chomsky (1981: 240 and folls.). The parameter allowed initially two values, which where two possibilities allowed by the following underlying principle (Chomsky 1982: 10):

(255) Extended Projection Principle
      Every clause must have a subject

Note that nothing is said about which type of subject. This principle can therefore adopt two basic values, determining whether those subjects can be null or not. What determined whether the subject could be null in Chomsky (1981: 241) is not the presence or absence in the lexicon of a phonologically empty pronominal form per se, but whether the inflection associated with the clause was strong enough to license the null subject. Within this framework, the null subject of a language which has set positively the Pro-drop parameter is a subtype of an empty category, together with traces of movement. Empty categories are syntactically defective, in the sense that they cannot function autonomously and are subject to a licensing requisite, which is formulated as the Empty Category Principle (Chomsky 1981: 250), where *e* stands for any empty category:

(256) [$_\alpha$ e] must be governed (in some sense)

We will leave aside the discussion of all types of empty categories that the theory allowed during those years and focus only on the specific case of null subjects. The core idea developed during these years, starting from a different analysis by Taraldsen (1978), is that setting the Pro-drop parameter positively meant having a Tense node (Inflection, in the more common terminology those days) that was able to govern an empty category in the specifier position, which was an instance of local government. Thus, the clausal structure of a null subject language would look roughly as in the following diagram:

(257) a.   ø   exist-o.
            ø   exist-1sg

       b.
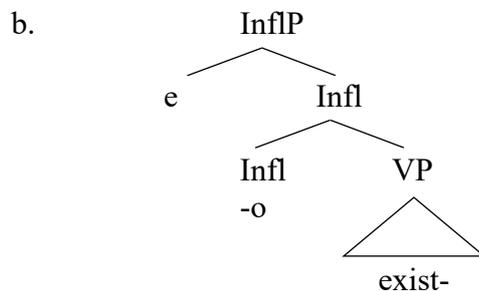
The language had an Infl node that could license the empty category provided that it was within its projection. In Chomsky's (1981) approach, licensing could involve an agreement relation between the specifier and the head, but nothing was said about whether that agreement had to be overtly expressed or whether it was compulsorily associated to governing the empty category in all languages. Remember, moreover, that

in this framework subjects were base-generated in spec, Infl, not derived via movement from within the VP, a proposal that was introduced later.

I want to emphasise that this account treats the effect of the parameter as a syntactic difference on types of functional heads that introduce subjects, not as a phonological effect of a deletion rule. Whether the null pronouns, which are assumed to be defective, can be used at all is a consequence of whether Infl is able to license the relevant empty category.

Originally, the name that Chomsky (1981) gave to the parameter –Pro-drop Parameter– was a shortening of 'pronominal drop', signalling that the cases where more clearly the two families of languages differed where with overt vs. null pronominal subjects. The term that because most extended to refer to the empty category that corresponded to null subjects in Spanish or Italian is *pro*, often read as 'little pro', but it does not emerge until Chomsky (1982: 81) within a broader discussion of the typology of empty categories. He observes that the traces of movement related to satisfy case behave as anaphors, while variables behaved as inherently referential expressions which are therefore neither anaphors nor pronouns. He highlights that if the typology of empty categories is defined as the effect of two binary features, [±anaphor] and [±pronoun], there should also be an empty category which corresponds to a pronoun.

That empty category is little pro, which acts like a pronoun in the sense that it cannot be coreferential with another referential expression within its finite clause, and is able to pick referents that are not introduced in its own clause, as we have repeatedly seen in §2 and §3 above.

PRO, on the other hand, and as we advanced in §3.2, acted as an empty category that was at the same time anaphoric and pronominal. This produced the typology of empty categories that follows (1982: 78 and folls.):

(258) a. traces of A-movement: [+ anaphor], [–pronominal]
　　　 b. pro: [– anaphor], [+pronominal]
　　　 c. PRO: [+ anaphor], [+pronominal]
　　　 d. empty variables: [– anaphor], [–pronominal]

I will leave aside the details about how PRO and pro differed in their licensing conditions (remember §3.2 above, and the references cited there), and I will only remind the reader that, to the extent that all languages allow (and in some instances, force) null subjects with non-finite clauses, the availability of PRO was not affected by the Pro-drop parameter, just as the availability of traces was equally unaffected.

Before ending this short discussion, I want to point out three aspects of it. First, the parametric view represented here was designed to account for the cluster effects that setting a parametric value had on other aspects of grammar. These are the associated properties that Perlmutter (1968) and Rizzi (1978, 1980, 1981) had identified as coming together with null subjects: free inversion, absence of that-trace effects, rich inflection, etc. This clustering of properties, in a parametric view, was treated as an effect of the availability of pro.

Second, the parametric view allowed for a further specification of options. Even though the simplest theory was considered one where parameters were binary and exhaustive, nothing within the system forced one parametric value not to be further subject to a second, dependent parametric choice. In fact, the evidence that had been accumulated so far with respect to typology had already made it clear that some languages only allowed null subjects when expletives. Thus, Rizzi (1982: 142) splits

the Pro-drop parameter in two. The way in which he states the parameter makes it obvious that the property under discussion is the nature of Infl (Tense, Agreement).

(259) a. INFL can be specified [+pronoun]
　　　 b. INFL which is [+pronoun] can be referential

Note that the idea (which can be traced back to Taraldsen 1978) is that in some languages the verbal inflection is the pronominal subject (see §5.4 below).

The first parameter roughly divides languages like French from languages like German or Spanish, where at least some subjects can be null. A negative value gives French and other non-pro-drop languages, while a positive value does not automatically define the Consistent null subject languages. If the first parameter is set as positive, there is a sub-parameter, the second one, that further specifies whether the pronominal inflection must be expletive or can introduce a referent. If this parameter is set as negative, we obtain languages where the only null subjects are expletive, like German; if set as positive, we define languages where thematic subjects can be null. Note that there are no additional parameters to differentiate languages like Finnish, which are Partial null subject languages, from (Peninsular) Spanish, but this is perfectly conceivable. One could even imagine a sub-sub-parameter like (260):

(260) INFL which is referential can refer to non-participant arguments.

This is the origin of the so-called Microparametric approach, which is revised in the next section.

Third, notice that, even though the approach is initially set as a discussion on the types of inflectional nodes, the attention that the theory paid to the typology of empty categories means that the parameters could easily be reinterpreted as applying to pronominals, not to inflectional nodes. Without changing the theory radically, one could imagine that the parametric choices could be stated as follows, setting conditions on the interpretation of the empty categories:

(261) a. An empty pronominal can appear with finite inflection.
　　　 b. An empty pronominal with finite inflection can be referential.
　　　 c. A referential empty pronominal can introduce non-participants

The first one would restrict empty pronouns to PRO if negative and would allow for some pro if positive; the second differentiates between expletive and thematic pro, and the third between the Consistent or Partial null subject languages. The perspective adopted in Chomsky (1981), with focus on Infl, was due to the attention paid in that work to the principles that underlie the licensing of empty categories, on the one hand, and (arguably) to the fact that clausal structure was at the time better understood than nominal structure (remember that Abney developed the DP hypothesis only in 1987). Nothing in the underlying spirit of the theory forced the conclusion that the relevant parameters could not apply in fact to the types of referential properties of the pronouns as empty categories, so this approach can be indirectly considered the seed of approaches of type (i) above.

5.3. The microparametric view

Rizzi (1982) already proposed that one parameter could be further specified by a subparameter, establishing in an explicit way a structure of parametric options that

could be viewed as a hierarchy. One could view his theory as a decision algorithm of the following form:

(262)   Principle: INFL must host a subject

Is INFL specified as [+pronoun]?

No   Yes

Non-pro-drop language   Can [+pronoun] INFL be referential?

No   Yes
Expletive null subject language   Pro-drop language
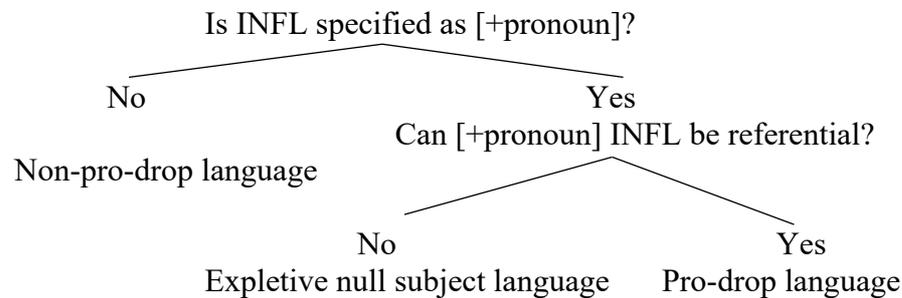
The field (with exceptions, see Baker 1996) evolved towards a view of parameters that adopted the same hierarchical view, but substituted the principles that are specified by the parameters –which are the options made available by the traditional parametric view– with distinct specifications for features (see Holmberg & Roberts 2010 for a general presentation). This was more in accordance with the Minimalist tenets at the time, where Universal Grammar lacks specific syntactic Principles like the Empty Category Principle or the Theta Criterion, and therefore all syntactic operations had to be driven by the feature specification of heads, which had to produce results that were readable at the Interfaces. Not having Principles meant that there was no preexisting space that constrained the possibilities where Parameters could play a role. This is the microparametric view, which reduces differences across languages to different features that their heads contain, and the different properties of features. This move was also more compatible with the so-called Borer-Chomsky Hypothesis (Borer 1984, Chomsky 1995), which suggested that language diversity emerged by different properties of functional heads, where the properties were always defined by formal features.

The diagram above, then, becomes one where the questions revolve around the feature specifications of heads, such as for instance the following one (adapted from Holmberg & Roberts 2010: 49):

(263)   Are agreement features obligatory on (functional) heads?

No   Yes
Are agreement features fully specified on all heads?

No   Yes
Are agreement features fully specified on some heads?

No   Yes
Are agreement features of T impoverished?
Are agreement features of v impoverished?
...
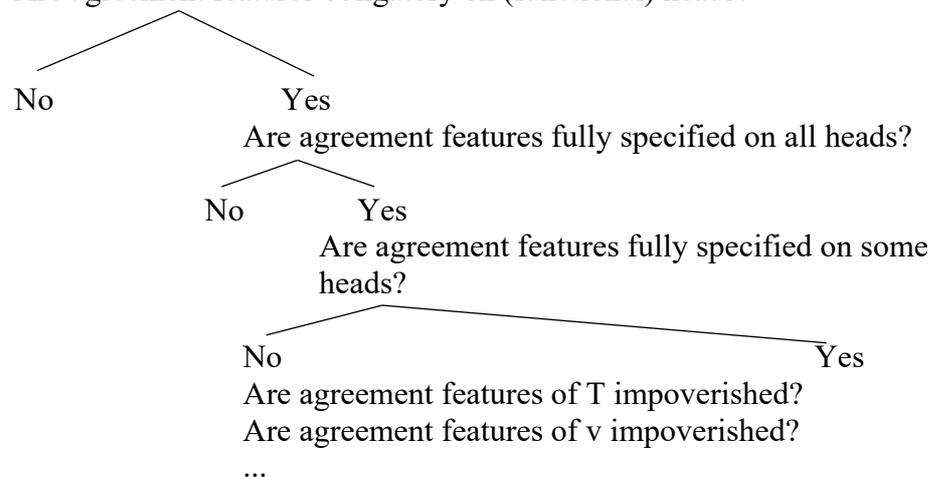
The type of questions, and the hierarchy, is determined in a combination of theoretical assumptions and empirical generalisations. The type chosen in this proposal

is designed for a theory of null subjects where the pronouns are deleted from PF if they contain a subset of the features of the T head, assuming some additional requisites (see §8.2 below), and it is not essential to the point that I want to make here.

What is relevant is that the parametric view becomes operationalised as choices on the type of features that the language has, where they are located, and whether the set of features is fully specified or is in some sense defective. The specifications, as can be seen in the diagram, can be of a very general nature, such as the negative answer to the first question, which is equivalent to defining the language as one that does not have agreement. Some other specifications can be highly specific, such as the incomplete list in the bottom lines, which allows a definition of the agreement in T as lacking (for instance) gender, without saying anything about whether v will agree on gender (for instance). The immediate consequence is that, then, this theory is better equipped to deal with lower range generalisations within a language, in contrast with the traditional parametric view, that assumed that the parameter would be fixed for all structures in the language. The microparametric view acts on the definition of features within heads, so it makes it possible that the behaviour of elements within DP and VP can be distinct, essentially because the two types of phrases will contain different functional heads which, in turn, could be specified differently for agreement features, or other types of features. Like this, one can account with the same set of theoretical tools for the fact that Spanish has gender agreement in DPs (with adjectives inflecting for masculine and feminine) but lacks it in clauses (with subjects never making the verb inflect differently depending on their gender).

An account that is microparametric necessarily has to explain differences between languages through the feature endowment of heads, then. Note that, still, the account is orthogonal among the three core theories that we presented above. The feature endowment of a functional head can be taken to be relevant for the distribution of null subjects because it defines different contexts where deletion of the pronoun may or may not occur (Roberts 2010; see §8.2.1 below).

5.4. Licensing and identification

Another overarching question is whether rich inflection is necessary in order to be a null subject language, as first noted in Perlmutter (1968). In some theories, where a null subject language is thus defined because the INFL node plays the role of the subject, the correlation is virtually necessary –particularly in a universe like the one in Taraldsen (1978), where the morphological surface materialisation needed to be a faithful representation of the feature content of an element–. Chomsky (1981: 241) also advocated for this view, which he presents as 'intuitive': when there is overt agreement, the subject can be dropped because the deletion of the pronoun is recoverable. This view matched also the received wisdom from early classical descriptive grammars in Latin or Greek, which described null subjects in the language noting that the verb was already inflected, and thus provided the required information to identify the subject.

At the same time, there were early on reasons to doubt that rich agreement was a precondition for a language to have null subjects: the existence of Radical pro-drop languages or Discourse null subject languages (Huang 1984) made it obvious at the time that there should be at least a second way of licensing a null subject, related to argument structure. The existence of these languages could still be made compatible with the rich agreement hypothesis, for instance proposing that these languages actually had agreement which was not manifested on the surface, or alternatively that the role of agreement as matching of features was transferred to the information structure

domain, in which case some head would still have an abstract property that allowed it to identify the empty subject in such languages.

The opposite type of counterexample was, however, more serious: remember the case of German, as one of the languages where inflection is quite rich, but where thematic subjects cannot be null (remember §2.4 above). There is no machinery to explain how a verb can display distinct overt agreement without it containing the appropriate agreement features on the relevant head, so these cases lead many scholars to reject the hypothesis that rich agreement was directly related to null subjects.

From this perspective, a better explanation of the correlation between null subjects and rich inflection immediately arises: the correlation is rather a tendency, and as a tendency it is due to the functional pressure that, irrespective of grammatical rules, disprefers silent pronouns unless they can be easily recovered from the context, be it through agreement or discourse means. Thus, a language without inflection can have null subjects if there is another way to recover them, and a language with rich inflection may lack null subjects because nothing in having rich inflection forces that null subjects should be used.

An intermediate possibility is also immediately obvious: there is no direct relation between having rich agreement and pro-drop –thus, rich agreement does not trigger pro-drop–, but there can be an indirect relation if rich agreement is a possible manifestation of the abstract property of the INFL node that makes null subjects possible.

On this regard, theories about null subjects that assumed some type of empty category started in the 80s to make a distinction between the licensing and the identification of the category, with the first being primary among the two (Jaeggli 1982, Safir 1985, Rizzi 1986, Jaeggli & Safir 1989). The core idea is that the licensing of null subjects does not depend on the presence of rich agreement, but on a more abstract property of the head that makes government or case assignment possible. The presence of rich agreement is, after that, one way to identify the reference of the null subject, but if it fails there can be other ways.

For instance, Jaeggli (1982: 145-148) proposes that one thing is the licensing of the empty category and a different one is what makes the category recoverable in abstract terms. The licensing condition is not significantly modified with respect to Chomsky (1981), but the distinct recoverability condition is introduced. This is framed within a discussion about the absence of that-trace effects in Spanish. Jaeggli (1982) proposes that the following sentence is grammatical because the trace left by the moved subject has been deleted, therefore avoiding the sequence that is not allowed:

(264) ¿Quién   crees   que ø   ha ganado el concurso?
        who   think.2sg   that ø   has won the competition?
      'Who do you think has won the competition?'

Jaeggli (1982: 145) proposes that the that-trace should be defined as follows (I update the syntactic labels to a modern terminology):

(265) *[CP that [DP e] ...] unless CP or its trace is in the context [NP NP___]

Spanish (or Italian) can undercome the ungrammaticality by erasing the trace, as a particular instantiation of the Subject pronoun deletion rule that can apply to the traces simply because agreement makes in these languages the erased element recoverable at

LF by agreement –English, on the other hand, has to erase the complementiser, and some languages like French cannot erase either–.

Rizzi (1986) also divides licensing and identification (interpretation is the term he uses) though his analysis of null objects, setting as his goal to provide a unification of the account for null arguments in the two cases. The following example shows an instance of a sentence with a null object:

(266) Este artista pinta ø   desnudo.
     this artists paints ø   naked
     'This artists paints [people] naked'

Rizzi's proposal is that null arguments must be licensed by case-marking, proposing that this is the way in which government manifests itself.

(267) pro is Case marked by X^0_y [Rizzi 1986:

Which heads case-mark pro is to be determined by a parametric choice, but in the case of the subject this would affect INFL (modernly, T). This does not mean that the reference of the pronoun is recoverable, being a silent category. The recoverability of the null argument depends on it inheriting some relevant features from another syntactic object (Rizzi 1986: 520).

(268) Let X be the licensing head of an occurrence of pro: then pro has the grammatical specification of the features of X coindexed with it.

In the case of the null subject, if the language has rich agreement, those features in INFL will be those that identify its reference.

However, there are also cases where the Pro-drop language does not exhibit agreement. One of them is the case of the null object, which gets an arbitrary interpretation, as in the example above. In this case, by hypothesis, and even though it would be an instance of PRO, there is a head that is able to license its case. However, this licensing is not done by a head that agrees with it, so the interpretation of the pronoun cannot be identified.

The arbitrary reading emerges as a rule of free application in the syntax (Borer 1984) that assigns the relevant interpretation to any argument carrying a theta role that is not otherwise identified. Thus, in the null object case presented above, as there is no agreement that the pronoun can be coindexed with, or any other procedure that can be applied to it, the free Arbitrary interpretation rule is applied.

The same situation can be illustrated with PRO in subject positions. Remember that the interpretation of null non-finite subjects is as coreferential to one of the arguments of the main clause or arbitrary, but the arbitrary reading only can emerge when there is no argument that controls it:

(269) Juan$_i$ obligó   a   Pedro$_j$ a PRO$_{j,*i, *arb}$ fregar el suelo.
     Juan forced   DOM   Pedro to PRO   wash the floor
     'Juan forced Pedro to wash the floor' (not 'Juan made Pedro take care that anyone washed the floor')
(270) PRO$_{arb}$ fregar el suelo   es necesario.
     PRO   wash the floor   is necessary
     'It is necessary to wash the floor'

This is the distribution that Rizzi (1986) expects if licensing and interpretation (identification) are distinct, and if the interpretation can be licensed via a free rule when there is no other way to obtain it.

This proposal was, at the same time, an attempt to unify different types of null subject languages: they may differ in the available procedures to identify the null argument, and not as much on the licensing conditions. In a brief discussion of Chinese as an example of a language that allows null subjects without agreement, Rizzi (1986: 545-546) suggests that what makes these languages different is that they do not use phi--features in the grammar, so they resort to other principles in order to identify the null arguments.

5.5. *Montalbetti's Overt Pronoun Constraint*

As we can see, during the 80s the discussion focused mainly on the licensing properties of the INLF head, with identification of reference taken as an independent issue. However, there were also approaches that identified differences in the nature of null subjects within nominal categories, and these opened the door for proposals that explained the existence of null subjects as mainly an effect of the specification of pronouns. Montalbetti's (1984: 73-133) Overt Pronoun Constraint can be viewed as an antecedent of these theories.

His starting point is a remark by Bouchard (1984), where he proposes that the Null hypothesis should be that the distribution, type and content empty pronouns should not be subject to special conditions that do not already apply to NPs (remember that this work precedes the DP hypothesis in Abney 1987, so NP must be interpreted as 'a nominal constituent').

Montalbetti (1984) then proceeds to show that, at least as the interpretation is concerned, Bouchard's (1984) extension of the Null hypothesis is too strong. The patterns of data that he uses to argue for these are largely those that we presented in §2.3 above and which involve the lack of bound variable readings for overt pronouns, outside focalisation contexts. Let us remember the main facts.

Montalbetti (1984: 81-82) differentiates three readings of *they* in the following English sentence:

(271) Many students believe that they are intelligent.

The readings are as follows: a free reading where the overt subject is not coreferential to the subject, and takes as referent some salient group of individuals that are not mentioned in the linguistic utterance; a coreferential reading equivalent to 'Many students believe that they (=those many students) are intelligent', where the subject is taken as referent, and a bound variable reading equivalent to 'For many x, where x are students, x think that x is intelligent'.

The equivalent with an overt subject in Spanish only has the two first readings and cannot be interpreted in the bound one.

Hence, he proposes the following constraint (1984: 94):

(272) Overt Pronoun Constraint
    Overt pronouns cannot link to formal variables iff the alternation overt / empty
    obtains.

Remember that the constraint only applies to cases where a null pronoun can be used. Therefore, after prepositions or in focalisation contexts, the constraint does not apply because in both cases the pronoun must be phonologically overt and the null instances are ungrammatical.

Montalbetti himself did not propose that null subjects are special types of nominal categories, but rather introduced a restriction on their interpretation that could be interpreted as a condition that applies at LF, in contexts where the less costly null pronoun strategy is used. However, the observation that overt pronouns could not be treated as variables and tended to be (co)referential allowed an immediate type of alternative interpretation, namely that null subjects where special types of pronouns whose feature endowment is different from overt pronominal expressions (see §7 and §8.1).

At this point, we have the general background needed to properly assess current theories of null subjects. In the next section, we will move to the problem of whether a null subject language allows at all an overt pronominal in the canonical subject position.

6. The position of overt subjects in Spanish

Any proposal that posits that null subjects may be the effect of an empty category – or an equivalent non-materialised expression– must at least raise the question of whether overt pronouns are in fact subjects. Beyond the mere logical possibility, there are two good reasons to question that overt pronouns act as subjects in Consistent null subject languages like Spanish. On the one hand, the explanation provided by Rizzi (1982) for the correspondence of null subjects with free inversion and the absence of that-trace effects suggests that the null pronoun can co-occur with an overt expression. This immediately gives plausibility to the idea that the subject position in a Pro-drop language is always occupied by a null subject, with overt expressions that are semantically associated to the null category occupying a different position –a theta-role position within vP, or an information structure position as topics or foci–. On the other hand, accounts where INFL (or T) are pronominal, thus satisfying the subject requisite through the verbal agreement, cannot simultaneously make the claim that a second subject is merged in the specifier position of that category –in essence, because no sentence has two subjects–.

The goal of this section is to review the available evidence and theories about the position of overt subjects in Spanish. We will see that, contra what some of the theories mentioned need to propose, there is ample evidence that overt subjects are at some point of the derivation in the argumental spec, TP position.

6.1. Overt subjects are not in TP

The idea that overt subjects in Spanish are not in the canonical subject position is explicitly advocated for by Contreras (1991). This author proposes that the difference between the T node (I, in his account) in null and overt subject languages is that in the former this head is defined as lexical. Following Fukui & Speas (1986), lexical heads cannot project a specifier, which means that necessarily the clause does not have a separate subject position.

(273)

```
           IP
          /  \
         I    VP
             /  \
            V    NP
```
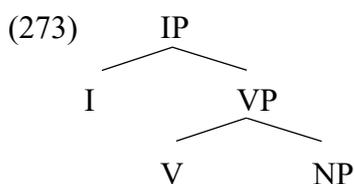
In contrast, languages like English have a functional I node, and they project a specifier that hosts the subject. I respect Contreras' (1991: 64) notation.

(274)

```
            IP
          /    \
       NP        I
               /    \
             I        VP
                    /    \
                  V        NP
```
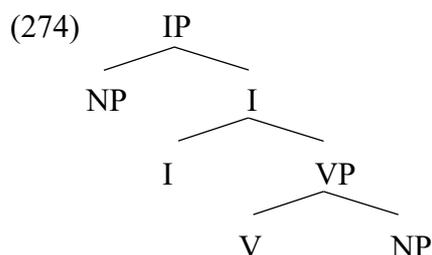
In Contreras' account, a lexical inflection is able to transmit case licensing to the VP constituent, which is its complement. Once VP inherits the case assignment, it can mark as nominative the NP argument which is inside it. In other words: post-verbal subjects are always within VP, without any additional movement operation that takes the argument outside from the verbal complex.

In other words, the reason why Spanish allows free inversion is that the overt expression never moves to spec, IP. In the case of English, the post-verbal order is not allowed in the general case because the subject position must be occupied.

In the case of preverbal subjects, the NP that was otherwise internal to VP must move outside, or be base merged in a position above I. Contreras (1991) proposes that the position is an adjunct position to IP:

(275)

```
            IP
          /    \
       NP        IP
               /    \
             I        VP
                    /    \
                  V        NP
```
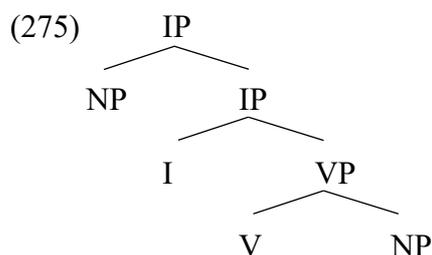
Contreras treats the adjunction to IP as equivalent to the English topicalisation operation, whose properties are close to foci. In fact, he proposes that the absence of English-style focalisation in Spanish is related to this property. The next example shows the English-style focalisation, which crucially does not involve a pronominal expression co-referential with the displaced element in the clause, or a prosodic break between the displaced element and the rest of the clause:

(276) This lesson Mary knows very well.

Despite some cases noted by Rivero (1978), that Contreras (1991) reanalyses as different structures, the equivalent in Spanish is odd, and it is necessary to resort to a clitic left dislocation structure:

(277) a. *Esta lección María sabe muy bien.
          this lesson María knows very well
       b. Esta lección, María la sabe muy bien.
          this lesson, María it knows very well
       'This lesson María knows very well'

Contreras' proposal is that English-style topicalisation involves adjunction to IP. If the preverbal subject already is in an adjunct position in IP, an intervention effect arises: the lower adjunct acts as an intervener that does not allow the proper licensing of the trace of movement of the higher one.

The general idea, then, is that preverbal overt subjects in Spanish are in an information-structure related position, not in the argumental spec, TP position. In accounts where information structure is strictly defined within CP, Contreras' seminal analysis is restated in terms of a TP / CP distinction. Pre-verbal subjects in such accounts would be in a CP position and receive a topic or focus interpretation (Fernández-Soriano 1989, Ordóñez 1997, Zubizarreta 1999). Notice that, prima facie, this fits with the general pattern of data, where overt subjects introduce some form of contrast, but remember that contrast may be explained by other, interpretation-based devices like Montalbetti's (1984) Overt Pronoun Constraint.

The literature has gathered several pieces of empirical evidence that argue in favour of the CP status of overt preverbal subjects in Spanish. Let us revise the list:

a) Post-verbal subjects can be in situ, but not preverbal ones (Jaeggli 1987, Ordóñez 1997). The following contrast shows that the same wh-element is licensed in situ when preceded by the verb, but not in the opposite order.

(278) a. ¿Qué   dijiste   que compró   quién el otro día?
            what   said.2sg that bought.3sg   who the other day?
        'What did you say that who bought the other day?'
      b. *¿Qué   dijiste   que quién   compró   el otro día?
            what   said.2sg that who   bought.3sg the other day?
        Intended: 'What did you say that who bought the other day?'

The explanation proposed for the asymmetry is that the wh-in-situ requires the interrogative to undergo covert movement at LF. It has been independently shown that constituents cannot undergo covert quantifier movement from A'-positions (Lasnik & Uriagereka 1988). If the post-verbal subject is in an argumental position (within the VP), it is expected that it will be able to undergo covert movement and be licensed as an interrogative. On the other hand, if the pre-verbal subject is in CP, this explains that covert movement will be impossible: CP defines A'-positions for its specifiers. If the pre-verbal subject was in spec, TP, the difference would not be explained, because spec, TP is an A-position, like the VP internal ones.

b) Interrogative inversion or focus inversion is automatically explained if preverbal subjects and foci compete for the same position (Gross & Bok-Bennema 1986, Zubizarreta 1998). Notice that (with the variation noted in §4.2 above, which in fact may involve varieties where null subjects are not general) wh-interrogatives trigger inversion and focalisation of an item generally also does.

(279) a. ¿Qué dijo Ana?
            what said Ana?
      b. %¿Qué Ana dijo?
            what Ana said?
        'What did Ana say?'
(280) a. EL LIBRO compró Juan.

      THE BOOK bought Juan
    b. *EL LIBRO Juan compró.
      the book   Juan bought
   'Juan bought THE BOOK'

c) Overt subjects can precede adverbs that, by assumption, are adjoined to TP or higher (Alexiadou & Anagnostopoulou 1998). On the assumption that specifiers are always lower than adjuncts, we would expect these adverbs to precede subjects (always), because they would be merged at a higher position. The following example shows that the order –which Alexiadou & Anagnostopoulou (1998) proposed for Greek– is also allowed in Spanish:

(281) Juan ayer tras muchos esfuerzos por fin conoció a María.
     Juan yesterday after many efforts by end met DOM María
     'Yesterday, Juan, after many efforts, finally met María'

d) Post-verbal subjects in Spanish may get wide or narrow scope, as expected if they are in an argumental position. In contrast, pre-verbal subjects can only get narrow scope (Uribe-Etxebarria 1995). The following sentence, with a post-verbal subject, allows two semantic interpretations:

(282) ¿A   quién   dices   que amaba cada senador?
     DOM   who   say.2sg that loved each senator?
     'Who do you say each senator loved?'

The wide scope reading allows a list answer: each senator loved a different person. The narrow scope reading, which involves that each one of the senators loved the same person, involves one single answer, which identifies the specific person that all senators loved.
    The equivalent with a preverbal subject only has the second reading (there must be a single person that each senator loved).

(283) ¿A   quién   dices   que cada senador amaba?
     DOM   who   say.2sg that each senator loved?
     'Who do you say each senator loved?'

Uribe-Etxebarria's proposes that the problem is that the preverbal subject is in a CP position. In contrast to spec, TP, the specifiers of CP are A'-positions. Resorting to the already mentioned constraint that A'-elements cannot undergo covert movement, the impossibility of raising the expression *cada senador* above *quién* at LF is explained if the first is in a CP position.

6.2. Evidence that overt subjects are in the canonical subject position

However, the general current consensus is that pre-verbal subjects in Spanish are, at least at some point of the derivation, in the A-position expected at spec, TP. Arguments in favour of this view are very often arguments that show that pre-verbal subjects do not behave as topics (or foci) in all contexts, which is a direct prediction in Contreras' proposal and those that follow versions of it. However, other arguments that do not immediately attack the idea that they act as topics have been proposed.

First, the evidence that has been presented in §6.1 in favour of treating overt expressions as topics or foci has been reinterpreted in these works:

a) The apparent impossibility of having a preverbal subject when wh-elements and other foci are merged in the same clause may be in principle accounted for if these contexts force V to move to the C head. However, some accounts have argued that this movement does not happen in Spanish (Suñer 1994), so a different explanation must be provided. Goodall (2002: 104-107) suggests that there is competition, but this is because, when moving to CP, the focus licenses a property of the TP area that prevents overt movement of the subject to the specifier.

b) Suñer (2003) revisits the adverb ordering facts –remember that a preverbal subject can be followed by an adverb which is expected to be attached to TP–, and notes that the fact that in those sentences the subject is outside TP does not mean that it was not within TP before. It is possible to move from an A-position (spec, TP) to an A'-position (say, a topic position), so the data do not grant the conclusion that the subject was never in spec, TP. In fact, the opposite order, where the TP adverbs precede the subject is also possible, and perceived as more informationally neutral:

(284)   Ayer tras muchos esfuerzos Juan por fin conoció a María.
          yesterday after many effors Juan by end met DOM María
          'Yesterday, Juan, after many efforts, finally met María'

c) The idea that pre-verbal subjects have their scope frozen in situ and cannot undergo LF-movement is also questioned by Suñer (2003). Although the pattern of data are complex and involve the potential interactions of a variety of elements (see Suñer 2003: 344-347 and Camacho 2013: 192-195 for discussion), it is possible to at least find cases where the scopal ambiguity is possible in preverbal position. As the following example (not taken from Suñer 2003) shows, there are no differences in ambiguity between the preverbal and the postverbal subject versions: both allow the reading where each guard was at a different corner.

(285) a. En una esquina, montaba guardia cada vigilante.
           in a corner,   stood   guard   each policeman
         'Each policeman guarded a corner'
      b. En una esquina, cada vigilante montaba guardia.
           in a corner,   each policeman stood guard
         'Each policeman guarded a corner'

Second, several asymmetries in the distribution of foci and topics, on the one hand, and preverbal subjects, on the other, have been noticed:

a) Topicalisation of an element makes extraction from the clause more difficult, but preverbal subjects do not act in the same way (Goodall 2002). The following contrast shows that a topic in the subordinate clause makes the wh-extraction more marked:

(286) a. ¿A quién$_i$ crees   que le   dieron   el premio t$_i$?
             to whom   think.2sg   that him gave   the prize ?
         'Who do you think they gave the prize to?'
      b. ??¿A quién$_i$ crees   que   el premio   se   lo dieron t$_i$?

    to whom think.2sg that the prize him it gave?
   'Who do you think they gave the prize to?'

  The following example shows that preverbal subjects do not, per se, make extraction difficult:

(287) ¿A quién$_i$ crees   que Juan le dio el premio t$_i$?
    to whom think.2sg that Juan him gave the prize ?
    'Who do you think Juan gave the prize to?'

  b) If pre-verbal subjects are like topics, they should be subject to the same constraints as them. Some expressions can be preverbal subjects but not topics, though (Rizzi 1986, Goodall 2002). For instance, an expression like *nadie* 'nobody' cannot:

(288) *A nadie, Juan no lo ha visto.
   DOM nobody, Juan not him has seen
   Intended: 'Juan has not seen anyone'

  This pronoun can act as a preverbal subject, which is unexpected if that position was also a topic position.

(289) Nadie ha venido.
   nobody has come
   'Nobody has come'

  c) Topics in Spanish can be followed by a wh-element, but preverbal subjects cannot (Goodall 2002). This is explained if preverbal subjects are below CP, where wh-elements are, and therefore appear in the TP area.

(290) a. Las manzanas, ¿quién las ha traído?
    the apples   who them has brought?
   'The apples, who has brought them?'
   b. *Nadie   ¿adónde ha llegado?
     nobody   where has arrived?
   Intended: 'Where has nobody arrived to?'

  d) Bare nouns in Spanish can be postverbal subjects but not preverbal ones (see for instance Zubizarreta 1998).

(291) a. *Niños llegaron.
     children arrived
   Intended: 'Children arrived'
   b. Llegaron niños.
     arrived children
   'Children arrived'

  However, bare nouns can be topics in Romance languages, and they can easily be focalised as well:

(292) Manzanas no tengo.

apples   not have.1sg
'Apples I don't have'

Again, this asymmetry is not easy to explain if pre-verbal subjects are topics or foci.

e) Goodall (2002) shows that pre-verbal wh-elements and foci allow extraction of an item (Torrego 1985), but pre-verbal subjects do not. This can only be explained if preverbal subjects are not in the same position as foci.

(293) a. Este es el poema del cual$_i$ no sé [cuántas traducciones t$_i$] se han hecho.
       this is the poem of which not know how.many translations SE have done
    'This is the poem of which I don't know how many translations have been made'
(294) a. *Este es el poema del cual$_i$ [tu traducción t$_i$] ha ganado premios.
       this is the poem of which   your translation has won prizes
    Intended: 'This is the poem whose translation, made by you, has won prizes'

Third, the information structure status of preverbal subjects has been shown to be distinct from the one that topics or foci have:

a) If preverbal subjects are topics or displaced foci, they should not be able to appear in sentences with wide focus, and still preverbal subjects can be part of a wide focus structure. Sheehan (2007) shows that a question like 'What happened?', which forces a wide focus answer, can be answered with a sentence that contains a preverbal subject, but not one that contains a topic or a displaced focus:

(295) Speaker A: ¿Qué ha pasado?
                  what has happened?
                'What's happened?'
    Speaker B. a. (Que)   Juan ha comprado la casa del vecino.
                            Juan has bought the house of.the neighbour
               'Juan has bought the house of the neighbour'
               b. #(Que)   La casa del vecino, la ha comprado Juan.
                            the house of.the neighbour, it has bought Juan
               #'The house of the neighbour Juan has bought'
               c. #(Que)   LA CASA DEL VECINO ha comprado Juan.
                            THE HOUSE OF.THE NEIGHBOUR has bought Juan
               #'THE HOUSE OF THE NEIGHBOUR Juan has bought'

b) Finally, Cardinaletti (1997) notices that topics must be contrastive, and therefore do not allow certain antecedents that preverbal subjects do allow. Camacho (2013) extends the results to Spanish: first, note that a topicalised subject cannot pick as antecedent a participant introduced in the previous sentence:

(296) Ayer le dieron un premio a una película de Wim Wenders$_i$.
    yesterday it gave a prize to a movie of Wim Wenders
    Después de la proyección, el director$_{j,*i}$, el premio lo recibió.
    after of the show, the director, the prize it received
    'Yesterday they awarded a prize to a film by Wim Wenders$_i$. After the show, the director$_{j,*i}$ received the award'

The following sentence, with a non-topicalised subject, allows the coreference:

(297) Ayer le dieron un premio a una película de Wim Wenders$_i$.
yesterday it gave a prize to a movie of Wim Wenders
Después de la proyección, el director$_{j,i}$ recibió el premio.
after of the show, the director, the prize it received
'Yesterday they awarded a prize to a film by Wim Wenders$_i$. After the show, the director$_{j,i}$ received the award'

These results follow if the subject can move to a contrastive topic position, but it does not need to be hosted there in all cases.

To conclude this section, the current consensus for Spanish, which is clearly presented in Camacho (2013), is that the spec, TP position must be available for preverbal subjects. From that position, they can optionally move to CP-related specifiers, which furthermore can define them as topics or foci, but subjects can stay in that A-position. In contrast, for post-verbal subjects, the consensus in Spanish is that they may not be located in spec, TP, but that they can at least stay within the vP, or perhaps in a lower functional position above the verbal complex. See on this regard Leonetti (2014) for the word order VSO, which may suggest that Spanish allows an intermediate clause-internal position for subjects.

7. The nature of the null subject

As we advanced in §5 above, most theories about null subjects propose that the empty category has a special status, which makes it defective with respect to overt versions. The idea that a null subject is a defective pronoun has been proposed in a variety of theories, starting from the idea that it corresponds to an empty category that requires licensing (remember §5.2 above). For instance, Camacho (2013) treats pro as a form that lacks referential information and must copy it from T (§8.1.4).

Although the nature of the null subject as a defective nominal is characteristic of many of the theories revised in §8.1, in this section I will focus on two proposals that have explicitly discussed the nature of the null subject. These theories, where the clearest exponent is Cardinaletti & Starke (1999), share the view of null subjects as syntactically impoverished with respect to overt pronouns. In principle, this theory opens the door to an account where no parametric or feature endowment differences have to be posited for T (INFL), and the clausal structure can be homogeneous across languages, but as we will see they are generally combined with theories where T is stronger. Proposing that null subjects (or some null subjects) are null because they are syntactically defective does not automatically exclude that the T node must have a special property that complements the defectiveness, or that a special type of T is independently required to license a null subject. Barbosa (2019), which is the second theory that we will overview here, illustrates even more clearly the combination of the two perspectives.

7.1. Pro as a weak pronoun

The idea that underlies Cardinaletti & Starke's (1999) treatment of null pronouns is that they are relatively deficient instances of the pronominal category, where 'deficiency' means that they lack a higher layer that makes them syntactically and semantically independent.

Their basic observation is that, within the pronoun category –that is, leaving aside DPs containing lexical nouns and proper names– there is a tripartite division between three types of pronouns: clitics, weak pronouns and strong pronouns. Using data from overt instances, they propose that the differences are the following:

a) Strong pronouns can be coordinated, but not weak pronouns or clitics:

(298) a. lui et celui de Jean   [French]
          he and that of Jean
    'He and that one from Jean'
    b. *il   et celui de Jean
         he   ant that of Jean
    Intended: 'He and that one from Jean'
    c. *Je la y le connais.
         I her and him know
    Intended: 'I know her and him'

b) Strong pronouns must have a human (animate) reading, but weak pronouns or clitics do not have to.

(299) a. Il est trop grand.
         he is too   big
    'He /It is too big'
    b. Lui est trop grand.
         he is too big
    'He is too big'
    c. L'ai   vu.
         he-have.1sg   seen
    'I have seen him / it'

c) If morphologically built over the same base, weak pronouns and clitics are reduced with respect to strong pronouns, as in Slovak *je-ho* (strong) vs. *ho* (weak).

d) Strong pronouns can be in peripheral positions, but not weak ones or clitics:

(300) a. ø arrivera presto, lei.   [Italian]
         ø will.arrive soon, she
    'She will arrive soon'
    b. *ø arrivera presto, essa.
         ø will.arrive soon, she
    Intended: 'She will arrive soon'
    b. *ø arrivera presto, la.
         ø will.arrive soon, her
    Intended: 'She will arrive soon'

e) Strong pronouns can be modified by noun-phrase internal modifiers, but not the other two.

(301) a. Anche lei è bella.   [Italian]
         also   she is pretty

'Also she is beautiful'
b. *Anche essa è bella.
   also   she is pretty
Intended: 'Also she is beautiful'
b. *Anche la è bella.
   also   her is pretty
Intended: 'Also she is beautiful'

f) Strong pronouns never appear as expletive subjects, while weak pronouns can.

(302) a. Il pleut.   [French]
      it rains
'It rains'
b. *Lui pleut.
      he rains
Intended: 'It rains'

Notice that clitics cannot appear in this position either; Spanish *se*, unequivocally a clitic, cannot be used with expletive verbs. The explanation that the authors provide is that the subject position of an expletive is necessarily a specifier position where clitics, that they will analyse as heads, cannot occur.

(303) *Se llueve.
     SE rains
     Intended: 'It rains'

g) Impersonal constructions reject strong pronouns. Note that French *on* behaves as a weak pronoun because it rejects coordination.

(304) a. Ils   m'ont vendu un livre pas cher.   [French]
      they   me have sold a book not expensive
'Someone sold me an unexpensive book'
b. #Eux m'ont vendu un livre pas cher.   [French]
      they me have sold a book not expensive
'They (specific) sold me an unexpensive book'

h) Strong pronouns can introduce non-salient references in the discourse, while clitics and weak pronouns must pick a referent that is already salient in the discourse.

i) Strong and weak pronouns can be focalised, but not clitics.

(305) a. *Jean LA voit.   [French]
      Jean HER sees
Intended: 'Jean sees HER'
b. Jean voit ELLE.
      Jean sees HER
'Jean sees her'

The reader has without doubt already noticed that the properties of weak pronouns match those found with null subjects in Spanish (Cardinaletti & Starke 1999: 68).

a) Null pronouns cannot be coordinated with each other or with another expression:

(306) a. *ø₁sg y ø₃sg vinimos.
　　　　ø　and ø　arrived.1pl
　　Intended: 'He and me arrived'
　　b. *ø₁sg y María　　vinimos.
　　　　　ø　and María　arrived.1pl
　　Intended: 'María and me arrived'

b) Null pronouns allow a non-human (animate) reading, but overt subject pronouns must be animate.

(307) a. ø　　es de madera.
　　　　ø　　is of wood
　　'It is made of wood'
　　b. #Él　　es de madera.
　　　　he　　is of wood
　　'He (human) is made of wood'

Remember also that we noted that in the overt subject pronouns in Spanish all have a human reading, which extends (trivially) to participant pronouns *yo, tú, vos, usted, ustedes, nosotros, vosotros*.

c) Null pronouns cannot be in peripheral positions, in contrast with overt pronouns:

(308) a. ø llegará pronto, ella.
　　　　ø will.arrive soon, she
　　'She will arrive soon'
(309) a. *ø llegará pronto, ø.
　　　　ø will.arrive soon, she
　　Intended: 'She will arrive soon'

d) Null pronouns cannot be modified by noun-phrase internal modifiers.

(310) a. [Solo ella] es guapa.
　　　　only　she is pretty
　　'Only she is beautiful'
　　b. *[Solo　ø] es guapa.
　　　　only　　she is pretty
　　'She is only beautiful' (not 'Only she is beautiful')
　　b. *Anche la è bella.
　　　　also　her is pretty
　　Intended: 'Also she is beautiful'

e) Null subjects can appear as expletive subjects.

(311) ø llueve
　　it rains
　　'It rains'

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f) They cannot appear in arbitrary 3pl.

(312) a. ø   me han vendido un libro barato
   ø   me have sold a book cheap
  'Someone sold me a cheap book'
  b. Ellos   me han vendido un libro barato
    they   me have sold a book cheap
  'They (specific) sold me a cheap book'

g) They cannot introduce non-salient references in the discourse.

While some of these cases are also covered by the Avoid Pronoun Principle that associates overt pronouns to marked interpretations, not all of them directly fall within it: for instance, the coordination problem is not immediately covered by it, and would require an additional constraint forcing coordination to reject null pronouns –which amounts to stipulating the property that one would like to account for–.

The analysis that Cardinaletti & Starke (1999) propose focuses on the internal syntactic constituency of each pronoun. Their proposal is that clitics correspond to a syntactic structure that is properly contained within weak pronouns, and the structure of weak pronouns is contained within that of strong pronouns.

(313) a. Clitic:

   Z

  b. Weak pronoun
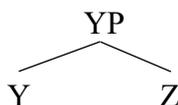
  c. Strong pronoun
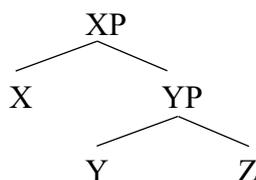
From this perspective, weak pronouns are syntactically impoverished with respect to strong pronouns because they lack the head X, and clitics are impoverished with respect to both because they lack X and Y. The containment relation directly explains the morphological reduction in the cases where morphology is transparent, with Slovak *je-ho / ho* as one instance which suggests that the missing structure in *ho* is spelled out as *je-* in *je-ho*.

The Avoid Pronoun Constraint, as stated in Chomsky (1981), and the Overt Pronoun Constraint (Montalbetti 1984), are formulated as requisites that essentially restrict the outputs, but very often (as we have seen) they are unable to block the presence of overt pronouns in contexts where null is possible. They just predict that, if they are present,

speakers will deduce marked interpretations, but they have no power in blocking those derivations. It is also unclear that the human reading of overt subject pronouns can be viewed as a marked effect. In Cardinaletti & Starke (1999), the principle is substituted with a general Minimise Structure principle that simply states that in each derivation the speaker will use the minimal amount of structure that fits the conditions of the syntactic derivation, and the content of what he wants to convey.

The X head is identified by these authors as a complementiser-like element C which closes off the extended projection of the pronoun (1999: 76), contains case (1999: 77) and is related to a human interpretation (1999: 79), which automatically blocks them as expletives. Weak pronouns (and clitics) lack this head, which means that their distribution is more constrained –for instance, they cannot be directly merged in peripheral positions– because they must enter in functional relations with other elements. Lacking C, they do not encode in the syntax a human reading and can refer to non-animates. If C is parallel to clausal complementisers, focalisation and modification is correctly expected to apply only to strong pronouns; following Wilder (1994), if one assumes that only DP and CP can be coordinated, only strong pronouns (being CP) will allow coordination. Finally, if C introduces its own reference, this also explains the tendency to disjoint reference found with these strong pronouns.

The Y head that strong and weak pronouns both contain is analysed as Laka's (1994) Sigma (Σ) functional head between INFL and complementisers. This head contains polarity features. As the clitic lacks this head and the features that come with it, the clitics must associate to another element, as a head, to supply these features: crucially this element must be in a local relation to the c-commanding Σ, which means that it has to be part of the clausal extended projection of the verb. This generally involves incorporation to the head, as the clitic –by hypothesis in this work– is a single head.

Finally, the Z head, which is parallel to INFL, is associated with the locus of phi features in the clause.

Thus, the revised feature endowment of each type of pronominal element is as follows, in parallel with clausal structures:

(314) a. Clitic

      I

   b. Weak pronoun

           ΣP
         /   \
       Σ I

   c. Strong pronoun

        CP
      /   \
   C ΣP
         / \
       Σ I
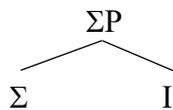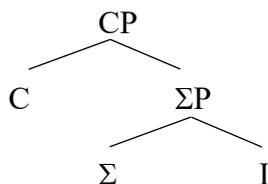
The following diagram represents the typical positions of each one of them: strong pronouns can appear more freely, while weak pronouns are XP objects that appear in

specifier positions of the relevant functional projections that supply case. Clitics are X0 elements that must incorporate to a head which is dominated by clausal ΣP.

(315)

```
        ΣP
       /  \
      Σ    FP
          /  \
       I+F    GP
      clitic  /  \
           ΣP     G
          /\     /  \
      weak  G   G    CP
     pronoun        /\
                 strong
                 pronoun
```
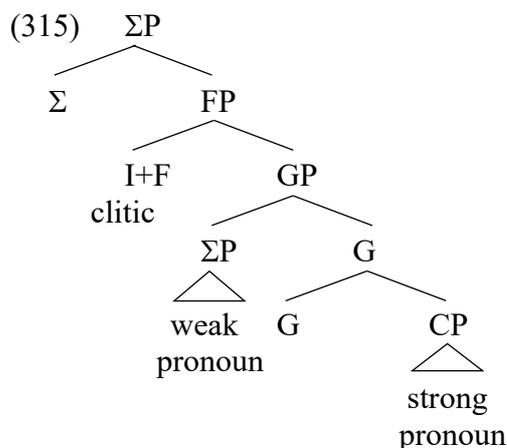
With respect to cases where the morphological materialisation of pronouns is not incrementally obtained in morphology, one solution that is readily available is simply to associate each one of these structures to different exponents. Starke, at the time, was developing in parallel the Nanosyntactic framework (Starke 2009), where it is possible to associate single exponents to complex constituents.

(316) a.   I   ⇐ /lo/

b.

```
      ΣP        ⇐  él
     /  \
    Σ    I
```

```
       CP       ⇐  a él
      /  \
     C    ΣP
         /  \
        Σ    I
```
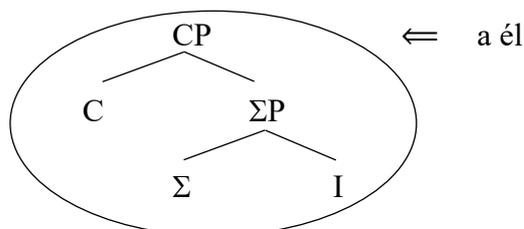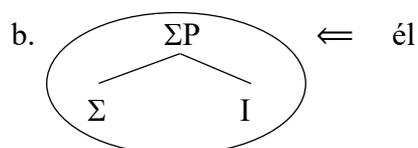
The position that these authors take, however, is not that the null pronoun in Spanish –or other Consistent null subject languages– is the result of a spell out rule that associates the intermediate structure with an exponent that lacks phonological information. They, in fact, propose that the null pronoun –to the extent that it behaves as a weak pronoun– is defective, and needs to be licensed by a functional head, much in the tradition initiated in Chomsky (1981).

The solution where the null pronoun is the result of a phonologically empty exponent is in fact not readily available. On the one hand, this solution amounts to considering the existence of null subjects a lexical fact, where one of the structures for pronouns is associated to a zero exponent. Nothing guarantees that a language would have overt expletive subjects but use phonologically overt exponents for weak and strong pronouns, or any other combination, but no known language behaves in that way. In order to account for the absence of languages of this type, the theory would have to resort to other devices –for instance, that the language does not project any pronoun with an expletive subject–.

Also, even if that problem could be overcome, a lexical account would require some adjustments in order to completely comply with the patterns for Spanish, as well as to explain why Radical null subject languages also allow overt pronouns in the subject position, albeit with distinct information structure effects. This would require further splits of the C and Σ heads which allow two types of strong pronouns, or two types of weak pronouns, that can be differentiated with distinct exponents, one of them null. For instance:

(317)

CP
├── C
└── C'P
    ├── C'
    └── ΣP
        ├── Σ
        └── Σ'P
            ├── Σ'
            └── I
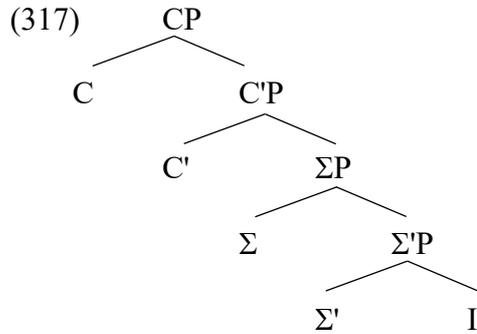
In this way, a Radical null subject language may have two distinct entries for objects that contain (part of) C, as follows:

(318)   CP $\Longleftarrow$ overt pronoun

CP
├── C
└── C'P
    ├── C'
    └── ΣP
        ├── Σ
        └── Σ'P
            ├── Σ'
            └── I

(319)   C'P $\Longleftarrow$ ø

C'P
├── C'
└── ΣP
    ├── Σ
    └── Σ'P
        ├── Σ'
        └── I
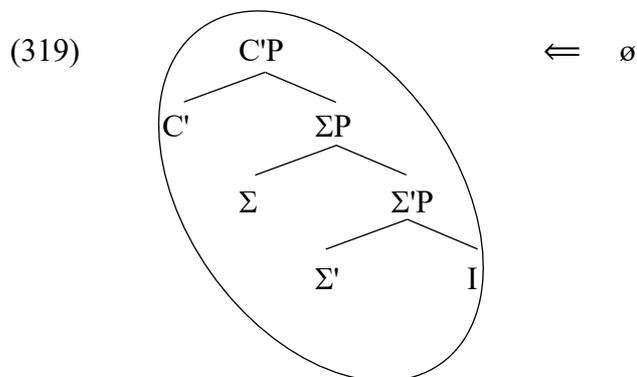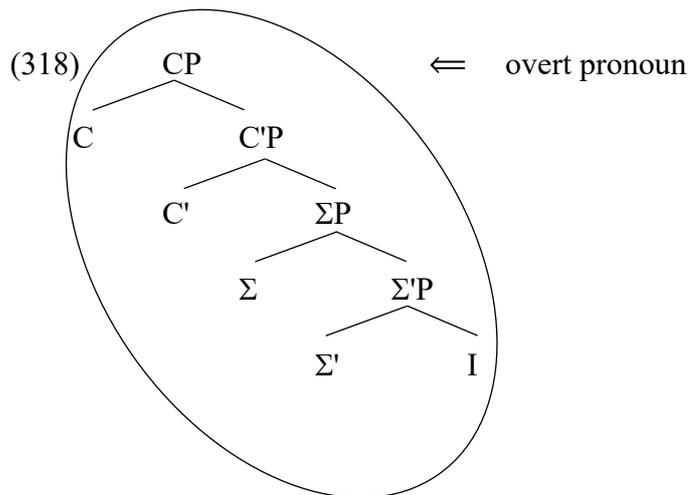
The assumption would be that C, in contrast to C', encodes whichever discourse properties empirical research shows that overt pronominal subjects have with respect to null versions in the relevant languages.

In particular, varieties of Spanish where overt pronouns do not need to be animate, but where null subjects are also allowed, seem to require that the Σ layer be split in two, so that non-human XPs can be either null or overt, again assuming that more detailed research will allow us to identify discourse or grammatical contexts where these varieties exclude one of the two forms. This splitting, however, is inevitable in Nanosyntax anyways as formulated in Starke (2002) and Caha (2009), given the requisite that each feature projects as its own head: this necessarily means that clitics cannot be single heads, because the gender and number differences that they display must be the effect of different syntactic structures.

A theory of null pronouns that is closer to Nanosyntactic tenets would be one where the TP could also spell out the position for subjects, which is what Manzini & Savoia (2002, see §8.1.2) in fact propose.

7.2. Pro as a type-shifted n variable

The goal of explaining pro-drop languages through properties of the pronominal expression and not those of the T node is also partially satisfied in Barbosa (2019), who –like Cardinaletti & Starke (1999)– also proposes that silent subjects in some Partial null subject languages are syntactically reduced versions of overt pronouns. Note that Barbosa builds her argument specifically against analyses of null subjects as elliptical expressions –assuming that ellipsis otherwise applies under identity, the deletion of the pronoun has the peculiar property that there is often no identical element in Partial null subject languages, where verbal agreement is often reduced–.

Barbosa's analysis can also assume that some languages that are pro-drop in at least some contexts have pronominal T (and in fact she initially makes this claim for Consistent null subject languages like Spanish, cf. 2019: 520). Our reason to treat her theory among those that put the nature of the pronominal expression at the center is that the T node does not by itself license a subject as a null constituent: in at least Partial null subject languages, the internal structure of the pronoun is what singles out null subjects from overt pronominal subjects. Also, her conclusions open the door for an extension of the nP hypothesis also to Consistent null subject languages, which she directly addresses at the end of the article.

Her account starts from proposals that go back to Postal (1966), where pronouns are DP expressions that contain a null noun which is subject to special semantic conditions. This null noun, following Elbourne (2005), is interpretationally equivalent to impersonal *one* in English, and in fact can be viewed as a silent version of it. Specifically, Barbosa (2019: 503) proposes that the null subject is the silent instantiation of the noun-categorising head little n. When this little n takes a root as its complement (Marantz 1997), a noun is produced:

(320)

$$
\begin{array}{c}
nP \\
\diagdown\diagup \\
n \qquad \sqrt{}
\end{array}
$$
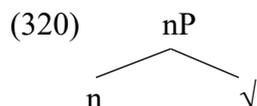
When little n does not combine with a root, it is null. An overt pronominal is obtained when this n is selected by an overt D, with potentially different languages projecting additional functional structure between both.

(321)

$$
\begin{array}{c}
DP \\
\diagdown\diagup \\
D \qquad n
\end{array}
$$
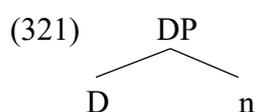
If little n is bare, the result will be a null pronoun –notice that Barbosa (2019: 504) leaves open the possibility that in some languages a null D combines with it–. The null nP is, alone, interpreted as a property that is trivially true of any individual ('entity'). The range of interpretation will depend on the syntactic configuration where it appears, because that null little n is basically as variable. Being a predicate –<e,t> type–, the null argument becomes part of a complex predicate with the verb (Chung and Ladusaw 2003), and the still unsatisfied argument position of the predicate still acts as a variable that must be somehow closed. The standard way of doing this is by introducing a quantifier that takes it as a variable.

This readily explains why in null subject languages the silent instantiation of the argument can behave as variables for quantifiers, but not the overt version (the Overt Pronoun Constraint). The existential and generic readings of null subjects are also explained by introducing the relevant operators with an existential (Chung & Ladusaw 2003) or a generic force (Chierchia 1995), which will take the null subject as a variable and trigger the relevant readings.

Referential readings, from this perspective, imply that the null little noun becomes turned into a definite expression, which is obtained by introducing the iota operator from Russell (1905) –see Fábregas (2018) for discussion–, which can act as a covert operation at least in languages that lack overt articles. This iota operator has the effect of turning the null subject into a definite expression that can anaphorically refer to another one (or even pick a unique salient referent from the discourse). Notice that if one assumes with Chierchia (1998) that languages with overt articles are forced to use them in order to introduce the iota operator, and therefore cannot have a covert iota operation, then the syntactic structure of the referential null subject –in contrast to the generic and the arbitrary one– would include a silent DP (Cyrino & Espinal 2015). In such case the structure of these pronominal expressions would not be radically different from overt pronouns, so that the properties of T would have to be invoked to license the difference between them. This aspect of Barbosa's analysis is left unspecified.

Assuming then only the covert iota operation that turns the nP into a unique referential entity, the immediate question that arises is what happens with languages where anaphoric subjects cannot be licensed, such as Cape Verdean Creole (remember §4.1.2 above).

(322) a. ø   sta faze   frio.
         ø   is making   cold
      'It is cold'
      b. Na   veron,   ø ta   korda   sedu.
         in.the   summer,   ø ASP wake   early
      'In the summer, one wakes up early'
(323) a. El   ta   trabadja duro.
         he   ASP works   hard
      'He works hard'
      b. *ø   ta   trabadja duro.
          ø   ASP works   hard
      Intended: 'He works hard'

From the perspective of Barbosa's (2019) theory, this is because the language does not have a covert iota-introducing procedure that turns little nP into a referential expression, and the only way out that is available for them is to introduce a D form.

Once D is introduced, the structure is not the one corresponding to null subjects in the language, just an nP, but a full DP, which spells out as an overt pronoun.

Barbosa (2019) initially proposes that Consistent null subject languages have phonologically null DPs and does not discuss if those DPs that correspond to null subjects have the same internal endowment as the overt pronouns or not. As said, the reason is that she assumes with Chierchia (1998) that a language with overt articles, like Spanish, cannot covertly introduce the iota operator. However, in the conclusions (2019: 521) she makes an argument that allows her to extend the nP proposal to Consistent null subject languages. What she notes is that a theory where arguments must be introduced within the vP faces a technical problem with examples like (324):

(324) Já   telefonei.
      already   called.1sg
      'I have already called'

If in Consistent null subject languages T is pronominal and that is what explains that null subjects are possible, the problem is that the pronoun (that is, T) is not in the right configuration with the vP to get a theta role. In other words, T is not vP-internal. In order to keep the configurational theory where arguments became such because they inside the vP as some point of the derivation, a null nominal must be introduced.

Barbosa proposes that the null category, also in these languages, is nP –thus confirming that any pro-drop language must have a silent nP available–.

(325)   vP
           ╱   ╲
        nP   v
                 ╱   ╲
              v   ...
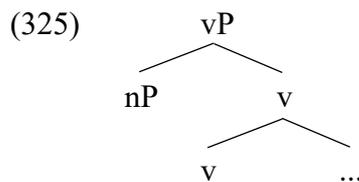
This nominal gets the theta role, resulting in a complex predicate where the argument position (y) is still open, and has received from the nP predicate the trivial entailment that it is an entity:

(326) $\lambda y \exists e[\text{call}'(e, y) \ \& \ \text{entity}(y)]$

This function is then applied to T as a pronoun –which in semantic terms means that it introduces an index referring to some entity–, therefore solving the issue.

8. Theories about the T node: licensing or ellipsis?

After having presented the main assumptions and options with respect to the licensing, identification, nature and position of null subjects vs. overt subjects, we are in a position to present an overview of the main theories about what accounts for the availability of null subjects in a Consistent null subject language like Spanish.

In what follows we will divide theories in two groups. In the first group, §8.1, I present those theories where a structure with a null subject is syntactically different from a structure with an overt subject in a language like English. The difference is that the TP does not project a subject position or, more frequently, that the null subject corresponds to a defective nominal expression in its specifier. In the second group, §8.2, the null subject structure is syntactically identical to the overt subject structure in a

language like English, and the only differences appear at the PF branch of the grammar, where the pronominal subject is deleted (or does not get a phonological manifestation).

In this overview, I will evaluate each one of the proposals under the light of the following set of observations, which I believe have already been established in the previous sections. The first two are relevant for the question of what makes a null subject possible cross-linguistically.

(i)   Only some languages are Consistent null subject languages. As we have seen in §1 and §4, not all languages allow null subjects. Any proposal must have a tool to explain what differentiates languages like English, that never allow them, from languages like Spanish, that consistently allow them. Theories can be stated only for one type of null subject language (Consistent, for instance), but ideally they should provide some directions to understand what makes it possible that only some subjects may be null.

(ii)   Morphological richness does not immediately correlate with null subjects, at least in any obvious way. As we have seen in §2.4, it is not obvious that rich agreement immediately licenses null subjects (cf. German), or that null subjects only emerge in the presence of rich agreement (cf. Radical pro-drop languages). Theories should either not establish a direct relation between the two aspects or provide some architecture that explains how agreement may be present but not manifested on the surface.

As this overview focuses on Spanish, there are other issues that are specifically relevant for the Consistent patterns that we have identified in this language:

(iii)   In Spanish, null subjects are compulsory with expletive verbs. We have seen in §2.1 that the only current context where subjects must be null are expletive subjects, at least in most varieties. Ideally, the theory should have a natural explanation of why expletive subjects cannot be realised.

(iv)   In the other cases, null subjects are not compulsory, although their overtness triggers marked information structure interpretations. As we have discussed in detail in §2.3 and §5.5, the empirical patterns show that overt subjects in contexts where null subjects are licensed trigger different types of information structure related readings whose variability strongly suggests that they are pragmatic effects rather than formally defined conditions on the interpretation.

(v)   Spanish allows overt subjects to be in spec, TP. In §6 we have revised evidence that strongly suggests that Spanish can host overt expressions in the canonical subject position. At the same time, there is also strong evidence that Spanish subjects may stay within the vP. A theory that accounts for these aspects should make it possible that subjects move to spec, TP while at the same time allowing them to stay in a different, lower position for the post-verbal manifestation.

(i)   Only some languages are Consistent null subject languages.
(ii)   Morphological richness does not immediately correlate with null subjects.
(iii)   In Spanish, null subjects are compulsory with expletive verbs.
(iv)   In the other cases, null subjects are not compulsory, although their overtness triggers marked information structure interpretations.
(v)   Spanish allows overt subjects to be in spec, TP.

8.1. Null subject sentences are syntactically different from overt subject sentences

As can be seen in the previous section, even theories where the analysis proposes a special nature of the null subject can associate the Pro-drop nature of a language with some special property of the functional head that introduces subjects in their specifier. This is without any doubt the main ingredient of most analyses of null subjects. This section revises theories about the nature of the functional head. Historically, this head has received different names: the two most common ones are INFL or I (for Inflection) and T (for Tense, on the assumption that the same head that materialises verbal inflection also encodes the clause's temporal information).

Here we will focus on those theories where the nature of the verbal agreement either licenses a defective pronominal or makes it unnecessary (sometimes, impossible) to project a subject in spec, TP.

8.1.1. Agreement acts as the subject

The most extended version of the analysis is the one where the special property that the Infl node has in null subject languages is that it is defined as a pronominal element, be it because it is specified as pronominal (Rizzi 1982) or because it contains a more abstract property, sometimes related to the presence of a [D] feature or an [N] feature (Pollock 1997: 170), that allows it to be equivalent to a nominal category. The core of this idea can be traced back to Taraldsen (1978, 1980), and its basic intuition is that in null subject languages the verbal person-number inflection is in fact acting as the subject.

The particular implementation of the idea varies, with consequences for the analysis of overt subjects. Note in particular that, if INFL / I / T (for now on, T) is directly specified as 'pronominal', a configuration like the following should be impossible given the so-called Principle B of the Binding theory (Chomsky 1981):

(327)

```
          TP
         /  \
       pro    T
             /  \
            T    ...
      [+pronominal]
```
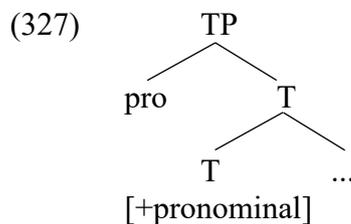
Remember that in Chomsky's (1982) system, pro is defined as a pronoun. However, Principle B of the Binding Theory (Chomsky 1981) specifies that a pronominal expression cannot be coreferential with another category that is present in its syntactic domain. Thus, pro as a pronominal category should not be coreferential with the head, which is also a pronominal category. As the result that one wishes to obtain is precisely that the head identifies the reference of the subject when it has enough morphological richness, this means that the previous configuration cannot be obtained.

There are two ways out. Rizzi (1982), who presents results obtained before Chomsky (1982), proposes that the spec, TP position is occupied by an empty category that is defective, and needs to be licensed by the pronominal inflection, but he never identifies this empty category as pro. One could, then, assume that the empty category in spec, TP is of an anaphoric nature, in a way that its presence in spec, TP is not only allowed, but even required by the licensing conditions of anaphors.

(328)

```
            TP
          /    \
         e       T
               /   \
              T      ...
        [+pronominal]
```
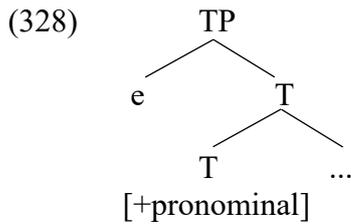
The second solution is to propose that, in fact, null subject languages do not have any empty category in spec, TP, precisely because the relevant head already plays the role of the subject. We have already seen that Barbosa (2019) proposes a version of this idea, which is also present –among many others– in Cardinaletti (1997), Costa (1998), Ordóñez (1997), Alexiadou & Anagnostopoulou (2001) or Panagiotidis & Tsiplakou (2006). In their account, a sentence with a post-verbal subject like the following one corresponds to a structure where the overt expression stays in situ within the vP (or some low functional position, perhaps) and there is no category in spec, TP:

(329) a. Corrió Juan.
        ran Juan
     'Juan ran'

    b.

```
            TP
          /    \
         T     ... vP
              /    \
           Juan     v
                   /  \
                  v    VP
                       /\
                      /__\
```
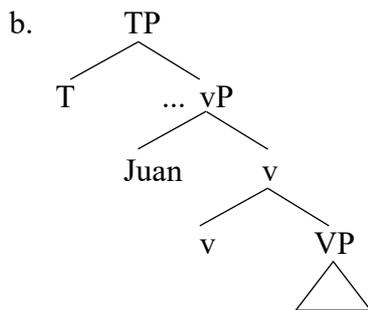
A strict application of the idea requires that the overt expression in the preverbal position does not occupy, either, a subject position, with the result that in the following sentence the DP Juan should not be in spec, TP either. We have seen in §6 above that this is at odds with most of the immediately obvious distributional patterns in Spanish.

(330) Juan corrió.
     Juan ran
     'Juan ran'

In most accounts that follow the idea that the post-verbal subject is not in a TP position, it is still required that T and that expression enter into a formal relation in order to identify their interpretation. The reason for this is the theoretical assumption that theta-roles must be configurationally resolved within the predicate. This forces argumental subjects to at least have been at some point within the verbal complex, something which is (presumably) not possible if the subject of the language is actually the head T. In order to overcome this problem, Alexiadou & Anagnostopoulou (1998), for instance, propose the pronominal T node and the overt expression within the vP complex establish a chain relation in the spirit of movement chains in Government & Binding theory. In this way, the overt expression receives the theta role, and the head T subject can be seen as its double. Ordóñez & Treviño (1999) further propose that this

relation is in essence the same one that is established when a clitic doubles an overt argument, as it is the case with datives in all varieties of Spanish:

(331) a. corri-ó$_i$ [vP   Juan$_i$...]]
     b. Les$_i$ di   los libros a ellos$_i$.
       them   gave the books to them
    'I gave them the books'

Note that the account immediately explains why no language is a Partial null subject language with expletive overt subjects and null referential subjects: in the case of expletives, there would not be any subject expression because T does not need it and the predicate does not need to assign a theta role to it (Alexiadou & Anagnostopoulou 1998).

If the assumption that theta-roles need to be assigned within the vP is kept, this family of analyses cannot fully remove the need for empty pronominals when the subject is thematic. In a sentence like (332), without any overt expression, these theories need to propose an empty nominal category within the vP that gets the theta role and establishes the appropriate relation with the T node:

(332) a. Com-í.
      ate-1sg.pfv
    'I ate'

    b.
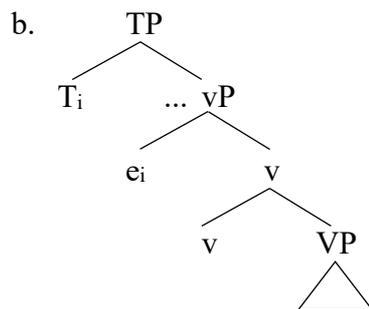
Let us then evaluate these theories under the light of the set of established facts that we presented at the beginning of this section.

(i)   Only some languages are Consistent null subject languages. This family of theories can easily explain this property by proposing that only in some languages the T node is defined as pronominal. If other features are allowed within this head, it is also possible in principle to differentiate the other languages which only allow expletive null subjects (remember Rizzi's proposal about the referentiality of the pronominal), and even participant vs. non-participant subjects.

(ii)   Morphological richness does not immediately correlate with null subjects, at least in any obvious way. This property could be problematic for this family of theories both from a methodological and empirical perspective. This family of theories, where T is interpreted as a pronominal category in some way, has been frequently associated with a strong commitment to Taraldsen's Generalisation, which relates Consistent null subject languages with a rich overt morphological inflection. It is true, from the perspective of the historical development of the idea, that Taraldsen (1978, 1980) cited as an argument in favour of the pronominal nature of INFL the fact that null subject languages had rich agreement, something that suggested even an incorporation analysis

where the agreement marker was actually a manifestation of a subject pronoun. However, note that in a theoretical universe where there is Late Insertion –that is, where the formal features are distinct from the exponents that emerge on the surface– this conclusion is not warranted: it could perfectly be the case that at a syntactic level T is pronominal and makes all relevant person-number distinctions, but the exponents used by the language do not reflect the underlying feature richness. For that one only has to commit to the idea that exponents may ignore contrasts that are syntactically specified, as Distributed Morphology does (Halle & Marantz 1993). However, note that this solution would be quite implausible for Radical pro-drop languages, which are in fact often treated as involving different procedures, and it would also trigger the methodological problem of making it unclear what evidence could count to determine that a language has rich agreement.

(iii)   In Spanish, null subjects are compulsory with expletive verbs. This can immediately follow from the approach, if the pronominal nature of T means that no specifier is projected: expletive subjects would disappear, because T does not need a specifier and the verb does not introduce an argument that corresponds to it. Alternatively, if the approach defines all overt pronouns as referential in this type of languages, expletive subjects would never be overt because they are never referential.

(iv)   In the other cases, null subjects are not compulsory, although their overtness triggers marked information structure interpretations. This automatically follows if overt subject expressions are topics of foci, or alternatively if one invokes an overarching principle of economy that prefers using the pronominal content of T unless an additional effect wants to be obtained.

(v)   Spanish allows overt subjects to be in spec, TP. This aspect is clearly problematic for these theories: if the pronominal nature of T means that other pronouns cannot be licensed in the same structure, the overt subjects cannot be in spec, TP. We have seen in §6 that, despite the still problematic case of wh-inversion, the evidence in Spanish strongly suggests that subjects can be hosted in spec, TP.

8.1.2. A pronominal subject node that T may license in some languages

Another version of these theories where verbal inflection is playing the role of the subject, but using a feature associated to T instead than a pronominal specification, is Manzini & Savoia (2002) propose that the difference between the T node of null subject languages and overt subject languages is whether the T node lexicalises a [D] feature – where D is an abstract feature that determines referentiality–, and in such case what type of [D] this is.

In their proposal, languages can be divided in two broad classes. Overt subject languages lack a [D] feature associated to the verbal inflection. Assuming that universally a subject must be contained in TP this means that these languages satisfy that requisite by movement or base merge of a constituent labelled D. One way to implement the idea is by proposing that the T head contains [D], as other theories also do (cf. Roberts 2010, for instance, in §8.2.1). In that case, an English-type inflection would be like this:

(333)

```
            TP
          /    \
        DP       T
               /   \
              T     vP
                    /\
                   /__\
```
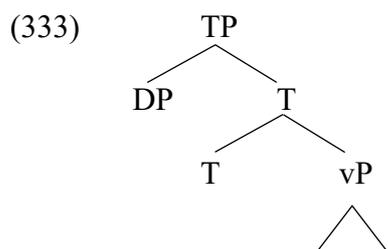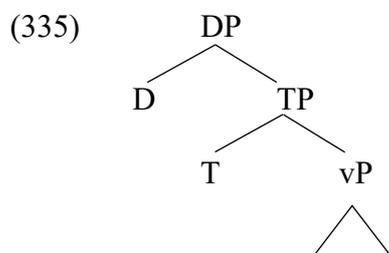
In contrast, null subject languages would satisfy the subject requirement through a D feature that is contained in T –which is a way of saying that the EPP property is lexicalised with T in that language–. In these languages, there is no pro, and overt-subject related expressions must occupy focus or topic positions within the clause.

(334)

```
            TP
          /    \
        T        vP
       [D]...    /\
               /____\
```
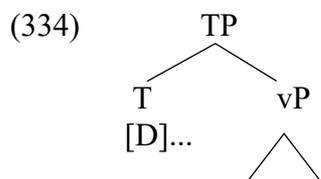
The universal property of languages would be that the TP must contain a [D] feature, either in the head or, that failing, in the specifier –which opens the possibility that the [D] feature is projected as a set of agreeing forms, separate from verbal inflection, but also without a pro category–. Following ideas from Manzini & Roussou (1999), these authors further propose that the [D] feature may be associated to aspectual features that solve the theta-role assignment (see the original work for details). Furthermore, the specification of the [D] feature can be taken as a starting point to differentiate between languages which only allow null expletive subjects ([D] is not referential), languages which only allow null 1st and 2nd person pronouns ([D] is related to participant features), and languages which are Consistent pro-drop.

However, adopting tenets from Nanosyntax (Starke 2002), what these authors propose is rather that subjects are projected as verbal DP-elements above TP –more or less, equivalent to the agreement head in Pollock (1989)–, and that property is universal:

(335)

```
            DP
          /    \
        D        TP
               /    \
             T        vP
                      /\
                    /____\
```

The difference between null subject languages and overt subject languages is that in the former the same lexical item that spells out the verbal inflection also spells out (through Phrasal Spell Out) the DP structure. In contrast, the inflection in English-like languages does not spell out the DP layer, which needs to be lexicalised by some overt expression –because the assumption is that it is universal–. Adopting the current Nanosyntactic machinery, the following diagram shows the relevant spell out, where the inflection is 'pronominal' in the sense that it covers the syntactic material of the subject position:

(336) a. so-mos
          be-1pl
       'We are'

b.
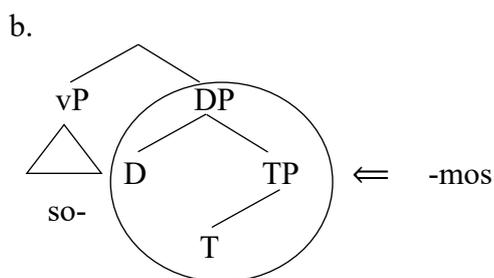
Let us now evaluate the theory with the same set of principles.

(i)   Only some languages are Consistent null subject languages. The account can be enriched in order to account for the variability, which eventually is a lexical fact – how much material the exponent covers–. Overt subject languages have 'smaller' agreement exponents that do not materialise T. If the DP structure is further split, so that the head closest to T corresponds to expletive subjects, and then the participant features for 1st and 2nd person follow, and only then other referential entities are defined, that hierarchy could in principle explain why no language has an overt expletive subject and null subjects for all classes, or a 1st person overt subject but third person null subjects. To the best of my knowledge, this type of proposal has not been developed (yet).

(ii)   Morphological richness does not immediately correlate with null subjects, at least in any obvious way. The problems that this theory encounters here are similar to those for the previous family: nothing in principle forces the exponents to directly reflect the featural differences –syncretism among forms is possible–, but methodologically this move makes it difficult to find solid tests that determine whether a language has rich agreement or not. Also, it is unclear what the claim that the D position is always compulsory means for Radical pro-drop languages.

(iii) In Spanish, null subjects are compulsory with expletive verbs. The approach, as stated, could account for this either if it loosens the requirement that verbal DP is compulsory –perhaps non-referential subject clauses lack it–, or, as it was explained, if the DP structure is actually a hierarchy of heads whose lowest member corresponds to expletives: in that case there would be no way in which the exponent for T could stretch up to cover non-expletives without also covering the expletives.

(iv)   In the other cases, null subjects are not compulsory, although their overtness triggers marked information structure interpretations. This can be explained either if the need to spell out D as a separate constituent emerges because the DP subject that the speaker wishes to introduce has a focus or topic feature, or if under informationally marked cases the DP structure must move. Either way, the exponent for TP would not be able to lexicalise the DP structure, because it contains extra features or because it moved to a different position.

(v)   Spanish allows overt subjects to be in spec, TP. The theory allows this, provided that the DP that is not spelled out with the TP exponent also contains additional features; then, this is possible but provided there is a semantic difference with cases without an overt subject. The prediction is granted by the empirical facts, as we have seen.

8.1.3. Strong T does not require a specifier

In the current theoretical universe, the most extended alternative is the one that treats T as a strong head in languages that allow null subjects, with overt subject languages having a weak version of T that requires an agreeing specifier.

The approach, developed in Chomsky (2015), is framed within the so-called Labelling theory. In the latest developments of the Minimalist Program, it has been argued that syntactic merge, to the extent that it can be viewed as set formation, does not define a label (Chomsky 2013).

Let us see how this works. Imagine that there are two constituents, alpha and beta, as in (337):

(337) a. α

b. β

Merge, as an operation, puts the two together and builds a new constituent with them. In Chomsky (2001), and previous works, the assumption is that merge defines a new constituent and projects the label of either alpha or beta as the label of the new constituent, as in the following tree representation (assume alpha is the one that projects, although nothing changes if it is beta).

(338) αP

α β
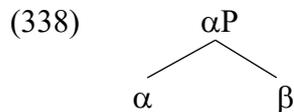
In set format, this corresponds to the following representation, where the first instance of alpha is the label of the whole set:

(339) $\{\alpha \, \{\alpha, \beta\}\}$

Chomsky (2013) proposes, on the basis of both theoretical and conceptual arguments, that Merge should be simplified in a way that the label is not projected by this operation. On the one hand, this means that merge is simply set formation, taking two constituents and creating a new constituent with them, as in the following representation:

(340) a. $\{\alpha, \beta\}$

b.

α β
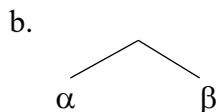
On the other hand, Chomsky (2013) notes that it is unclear how could Merge decide which one of the two constituents should project, given that semantic or syntactic selection are no longer primitives in the theory.

Labels are, however, required at the interfaces, because they are relevant for both semantic interpretation (to determine the semantic type of each constituent) and phonological interpretation (to determine linear ordering). Therefore, language must have a post-syntactic procedure that assigns labels to complex constituents.

That procedure is defined in Chomsky (2013) as a minimal search procedure that happens whenever a phase is transferred. When a head and a phrase are merged together, the minimal search procedure identifies the label of the head –because it is closer than the head contained within the phrase– and uses it to label the whole constituent:

(341) a.

```
        /\
      α      βP
            /\
           /__\
```

b.
```
        αP
       /\
      α      βP
            /\
           /__\
```
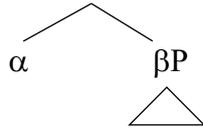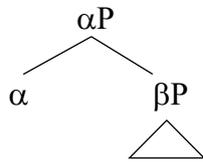
When Merge is symmetric in the sense that both constituents in the new set are heads or phrases, Minimal search does not give univocal results, because both heads are equally (in)accessible. In those cases, either one of the two constituents must move out ('labelling by evacuation', cf. Citko 2018) or the two constituents will agree. If they agree, the new label will correspond to the agreeing features of the set. This is the case of subject-T agreement in the standard theories: the DP subject, a phrase, must agree with the TP, also a phrase.

(342)
```
          /\
        DP      TP
       /\      /\
      /__\    /__\
```
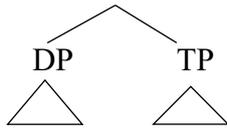
Chomsky (2015: 9) extends this basic framework to account for the distinction between null and overt subject languages. In null subject languages, the T node is strong, and this means that it can by itself label the clause, as TP (note that this is anyways expected by the Minimal search).

(343) a.
```
        /\
      T      vP
            /\
           /__\
```

b.
```
        TP
       /\
      T      vP
            /\
           /__\
```
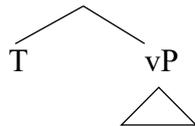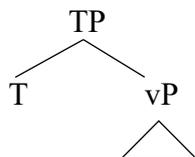
This means in practice that the T node of these languages is able to function without a specifier, something which automatically opens the door to treating cases of null subjects as instances where no pronominal expression is in spec, TP.

Overt subject languages, in contrast, have a version of the T node that is too weak to label by itself the whole set. For these languages, T needs to be strengthened by agreement with another element. This means that a nominal category must be merged with T, and agreement has to be established with it, as in the following diagram.

(344)

DP

T
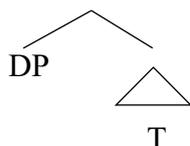
At that point, via agreement, the spec, TP construction is labelled <ɸ,ɸ>, where phi corresponds to whichever nominal features –gender, number, person– have been copied in both heads. At that point, the whole is labelled with these agreement features.

Note that this amounts to treating null subject languages as the default –a head T should be able to label the whole when merged with any XP, by Minimal Search–, and Non-Pro-drop languages as the marked ones, because they have a weak version of a head that is unable to label, contra the basic form of the Labelling Algorithm.

Second, there is nothing in the system (quite the contrary) that prevents overt subjects from appearing in the spec, TP position in a null subject language. Even though T is able to label the set alone, nothing blocks a configuration like (345), where the agreement between the specifier and T would also label the set:

(345)

DP

T
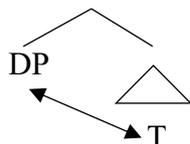
In fact, establishing that relation when an overt subject is present may be virtually unavoidable with vP-external arguments: at the vP level, a DP that is in the spec, vP position will produce a problem of Labelling because it is a symmetric XP, YP structure where Minimal Search does not single out any of the two heads. If vP does not establish agreement (overt or covert) with the external argument in the language, the DP will have to evacuate and will keep evacuating until it finds a head that it can agree with. That head could be T –and at least under minimalist assumptions about the available functional structure above vP, it must be T–. Consequently, this account allows preverbal subjects to be in a spec, TP position (as one of the possibilities), and is not committed to a topic analysis of these expressions, in contrast to the theory that treats T as pronominal.

Finally, there is a potential problem in the theory, that depends on details of the PF interface that, to the best of my knowledge, are not clarified in the current proposals. From this perspective, the strengthening via agreement is more an interface requirement than a syntactic requirement, because labelling happens after syntax. This becomes obvious in the analysis of the that-trace effect that is adopted within this framework. The reason why a language like English cannot extract the subject from spec, TP and merge it in spec, CP is that in such case spec, TP would host a silent copy of the subject, as follows:

(346)

```
        who
           \
            C
             \
             who
                \
               T    ...vP
```
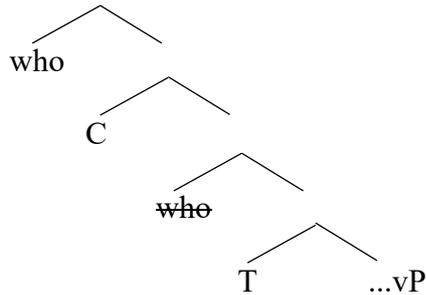
At PF, the lower copy is unpronounced, and Chomsky (2015: 9) argues that this is precisely what makes labelling impossible: the unpronounced copy is not enough to strengthen the weak T node. In contrast, in a language Like Spanish T is strong, so it can label even when the agreeing subject is unpronounced.

This shows that the strengthening is sensitive to the phonological overtness of the items: if the strengthening was satisfied when the agreement operation happens in syntax, it should not play a role whether spec, TP hosts an overt or a silent copy of the item that triggers agreement. But then the question that emerges is whether strengthening itself also requires the agreement to be phonologically overt: does the T node require a phonological manifestation of agreement in order to be strengthened? This does not seem to be the case in any obvious sense for English, although it could be for a language like German. It is unclear whether the theory is making a commitment for null subject languages, to the effect that the strong nature of T should manifest overtly as displaying rich agreement.

To conclude, perhaps the underlying problem of this theory is that what it means to be weak or overt is not properly defined, and even the level of grammar at which this distinction is relevant is unclear. In the next section, we will revise a different theory where T's strength can be viewed as richness of abstract agreement, which may be interpreted as one explicit way in which the strength of the node can be analytically represented.

Let us now subject the theory to the usual set of questions:

(i)   Only some languages are Consistent null subject languages. The theory can account for this, obviously, through the difference in strength between T heads. Nothing prevents the T heads to be further specified for additional features that would cover the more fine-grained distinctions between types of null subject language, and in the case of expletives it is possible to treat their null status as absence of a pronominal expression in languages that do not require a specifier in TP por labelling.

(ii)   Morphological richness does not immediately correlate with null subjects, at least in any obvious way. To the extent that the theory does not make any commitment to what counts as strong, or whether that requires a clear PF manifestation, the theory is in principle compatible with this.

(iii)   In Spanish, null subjects are compulsory with expletive verbs. As said, the approach could treat expletives as never present in the syntax, unless independently needed to label TP.

(iv)   In the other cases, null subjects are not compulsory, although their overtness triggers marked information structure interpretations. Nothing in the theory prevents a Spanish-type TP to host a specifier –it only says that no specifier is required–, so the theory also accounts for this by simply proposing that speakers will interpret presence of a specifier as signalling some extra piece of information.

(v)   Spanish allows overt subjects to be in spec, TP. The theory allows this, as it does not block structures where TP has specifiers.

8.1.4. Null subjects as expressions identified by agreement

Camacho's (2013) proposal shares the idea that the T node in languages that allow null subjects must be stronger, in a sense. In his view, strength is a relative property that is operationalised as the phi features which the inflection contains. He combines this central idea with a view of pro as a defective category similar (but not identical) to Cardinaletti & Starke (1999). See also Speas (1994, 2004) for similar ideas where pro is a defective pronoun and the features must be licensed by T.

The first ingredient of Camacho's (2013: 175 and folls.) analysis is that null subjects correspond to a pro whose distinctive property is that they lack any of the referential features that overt pronouns have. He represents this by defining pro as an expression with an empty R(eference) node:

(347)   pro
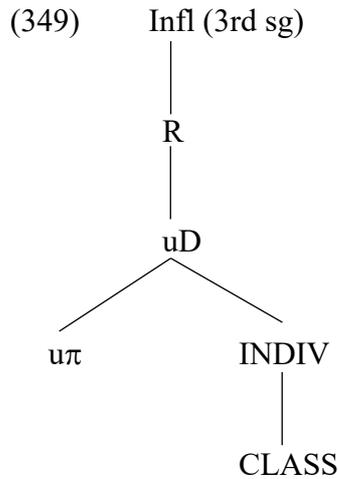 |
              |
              R
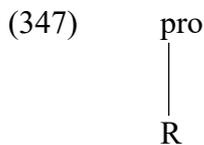
In contrast, an overt pronominal subject will have at least some specifications of R, such as a D(eterminer) node that can introduce reference, with additional specifications for gender, person, number, etc. –Camacho (2013: 115-120) assumes a feature geometry in the sense of Harley & Ritter (2002)–. For instance, a third person singular overt pronoun would have the following features depending on R.

(348)   pro
              |
              R
              |
              D
             / \
            π   INDIV
                 |
               CLASS
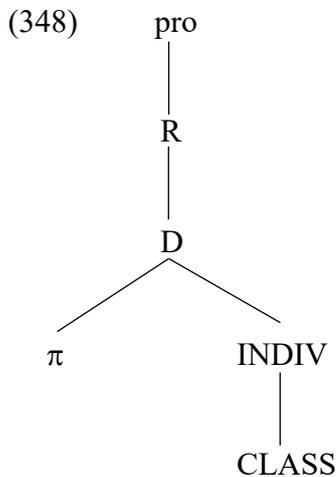
The defective nature of pro, like in Cardinaletti & Starke's (1999) original proposal, means that the missing features must be obtained by entering a formal relation with another head. The relevant one for subjects is the node that contains inflection, and the specific procedure that Camacho (2013) proposes is feature valuation. Valuation, in Camacho's (2013: 122) sense is different from standard accounts: it involves copying the missing nodes, and these can be copied from a matrix where they are uninterpretable.

In fact, in a null subject language they are copied from Infl, which –when it contains it– has uninterpretable versions of the features. Being 'pronominal', then, simply means

that the inflection has enough nominal features, in a sense that we will specify below. In the following diagram 'u' before a feature means that the feature is not interpretable.

(349)   Infl (3rd sg)
             |
             R
             |
            uD
           /   \
         uπ   INDIV
                   |
                 CLASS

The uninterpretable features are copied in the pro, resulting in the following configuration:

(350)   pro
             |
             R
             |
            uD
           /   \
         uπ   INDIV
                   |
                 CLASS
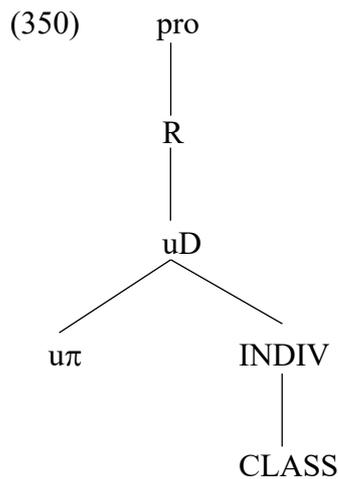
This simply means that pro will not be referential by itself. Note, however, that contra Chomsky (2015) and the approaches which treat Infl as pronominal, Camacho (2013) assumes that there will be a subject in spec, TP in all structures, in accordance with the universal principle that every subject must have a structural subject.

The second ingredient of the proposal is Cole's (2009) Minimal Morphological Threshold (Camacho 2013: 112). Different languages will determine which nodes must be copied in the pro element in order to license it. Some languages will require copying in person, number and gender (2013: 124), others only person and number –where Spanish belongs, cf. (2013: 126-129) and others simply person (2013: 129-131). Partial null subject languages are simply a manifestation of these choices, combined with the existence of contexts where the INFL nodes do not always contain the features required to license the pro element.

The third element is the identification of the null pro. Camacho (2013: 146 and folls.) takes from Cole (2009) the approach that the identification requirements are also hierarchically ordered, with languages establishing different thresholds. In the case of Spanish, the identification of the subject is always attempted first through the

morphology –in the sense of the appropriate features that have been copied by valuation–; only when that fails, identification based on discourse properties is attempted, and if that fails the subject gets no reference (for instance, arbitrary contexts). Radical null subject languages like Chinese, lacking morphological means, directly license the identification through discourse means (2013: 166).

An important constituent of Camacho's (2013) analysis is that the Minimal Morphological Threshold that each language is assumed to be at least indirectly reflected in the morphology, via contrast between agreeing forms. This is necessary for the learnability of the approach: when the learner encounters a morphological contrast in the agreement of a verb, she will set the Minimal Threshold to a value that at least includes that feature, with the ordering between them being dictated by the universal feature geometry: an agreement contrast in person will set the bar to 'including at least person', and if the learner identifies also gender contrasts, then gender will be added, etc. If there is no morphological evidence for contrast, then the Threshold's default value –which is that no null subjects are allowed– will not be changed.

This theory has several properties that might be seen as problematic. One of them is that, if indeed languages set the Minimal Threshold through morphological properties, the approach endorses in principle some form of Taraldsen's generalisation. The exceptions like German, where morphology contains contrasts that are however unable to license pro, would have to be explained by additional properties of the language, perhaps further specification of the feature valuation procedure, perhaps of another nature. Additionally, note that the account needs to adopt a revised version of agreement where it does not simply involve matching between interpretable (or valued) features and uninterpretable (unvalued) ones: a crucial part of its account is that valuation may be copying uninterpretable features in an object that has an incomplete feature endowment. While the intuition that in null subject languages T drives feature valuation or copying can be traced back to Rizzi (1982), authors like Roberts (2010) have noted that they involve a relation between feature matrixes that is not legitimate in the current theoretical universe.

As a final assessment, let us go through the same set of questions as before:

(i)   Only some languages are Consistent null subject languages. The morphological minimal threshold can be set differently in different languages, so this account explicitly incorporates a procedure to explain language variation, and typological differences internal to the null subject class.

(ii)   Morphological richness does not immediately correlate with null subjects, at least in any obvious way. The problems that this theory encounters here are similar to those for the previous families, to the extent that the features must be present in T. Late insertion might make the approach compatible with the diverging instances, but that raises methodological issues.

(iii)   In Spanish, null subjects are compulsory with expletive verbs. The approach captures this through the idea that pro's defectiveness means that it is never referential. As the overt versions contain at least some features that define referentiality, overt pronouns cannot be expletive in these languages.

(iv)   In the other cases, null subjects are not compulsory, although their overtness triggers marked information structure interpretations. In this approach, this simply means that the speaker decided to use the purely referential pronoun and not the defective one, which is expected to correlate with pragmatic differences.

(v)   Spanish allows overt subjects to be in spec, TP. The theory allows this, given that null subjects are in spec, TP and T is not defined as pronominal.

Let us move to the last family of theories, which are characterised by proposing that Consistent null subject languages and overt subject languages may be syntactically equivalent, with differences only emerging at PF.

8.2. The deletion analysis: null subjects as syntactically identical to overt subjects

As we have seen, some of the approaches that associate null subjects to some special property of T require null subjects to correspond to a special type of pronominal, be it a null category, a defective pronoun or some other type of empty object. However, the first account of the phenomenon in Generative Grammar, which is Perlmutter (1968), did not propose that null subjects correspond to special types of objects, but rather that they are syntactically equivalent to overt pronominal subjects. In his account, a null subject is obtained only if a deletion operation applies at the surface –operation that might be blocked by a filter–.

This idea that null subjects are merely phonologically null versions of standard pronouns has also been argued for in some modern approaches, which we will review in this section. In this discussion we will put together theories that differ with respect to the partially independent question of whether the phonologically null effect involves deletion or rather non-materialisation of the pronoun (see Fábregas 2023b for the discussion in the frame of ellipsis), as both produce the same surface effect.

In this section we will revise three influential approaches, which respectively treat null subjects as deletion of identical copies, non-materialisation due to ellipsis, and deletion under topic-matching. I will leave aside Neeleman & Szendroi's (2007) proposal, where null subjects are the effect of deletion due to a materialisation rule that applies to full phrases, because it is designed for the specific case of Radical Pro-drop languages with agglutinative pronouns, and therefore does not apply to the case of Spanish.
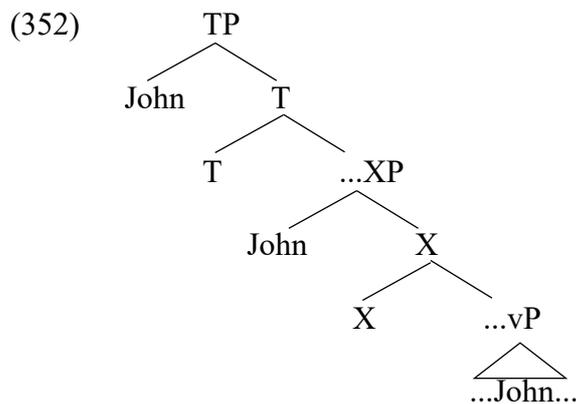
8.2.1. Pro as a copy of agreement

One first line of reasoning is that null subjects may be null for the same reasons, and under the same conditions, that low copies of movement are null. This approach, where null subjects are phonologically empty because they are copies of agreement, is represented by Roberts (2010), and as we will see it can be viewed as the specular reflection of Camacho's (2013) theory. While in Camacho (2013) a null subject is a defective pronominal that is only licensed when the T node can value a sufficient number of the missing features, in Roberts (2010) a null subject is a normal pronoun which becomes phonologically null when T identifies a sufficient number of its features through agreement.
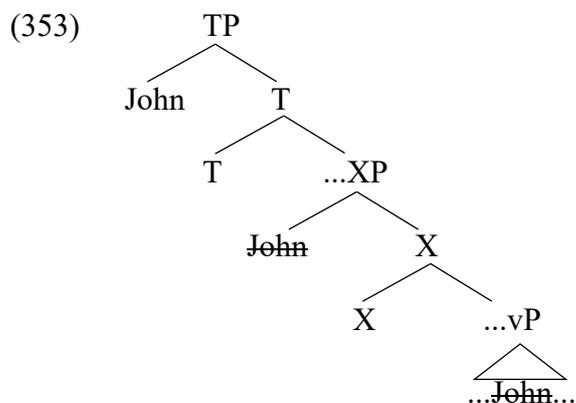
Roberts (2010) tries to unify null arguments with the copy theory of movement, as instances in both cases of constituents that lack a phonological manifestation because they are identical to some overt material. The theoretical background is the so-called Copy Theory of Movement (Chomsky 1995, 2000, 2001). The copy theory of movement reduces empty categories making traces of movement unnecessary. In Government and Binding (Chomsky 1981) the base position of a constituent before movement and any other position assumed as an intermediate movement site contains a trace (t), an anaphoric or referential empty category. The idea that those traces where 'instances' of the moved constituent was captured through the notion of chain: the traces and the overt constituent established a formal relation with each other that resulted in a chain, a discontinuous constituent. Coindexation was the formal device used to express this formal relation.

(351)
```
              InflP
             /     \
         John_i    Infl
                  /    \
               Infl    ...XP
                      /     \
                   t_i       X
                           /   \
                          X    ...vP
                                /\
                             ...t_i...
```
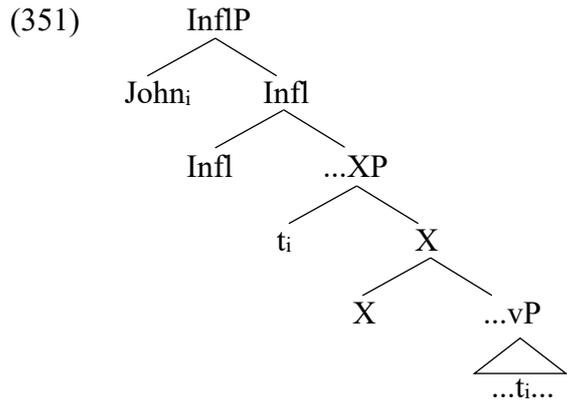
This account needed both empty categories and an independent coindexation procedure, whose nature was unclear. The Copy Theory of movement makes empty categories and chain formation unnecessary because it proposes that the base position and the intermediate landing sites contain identical copies of the same constituent, as in (352):

(352)
```
              TP
             /   \
         John     T
                 /   \
                T    ...XP
                    /     \
                 John      X
                         /   \
                        X    ...vP
                              /\
                          ...John...
```

At PF, the lower copies –if they were c-commanded by the highest, and other phonological requisites are met (see Nunes 2004)– were deleted (or did not receive a PF manifestation), resulting on that only the highest one was phonologically materialised.
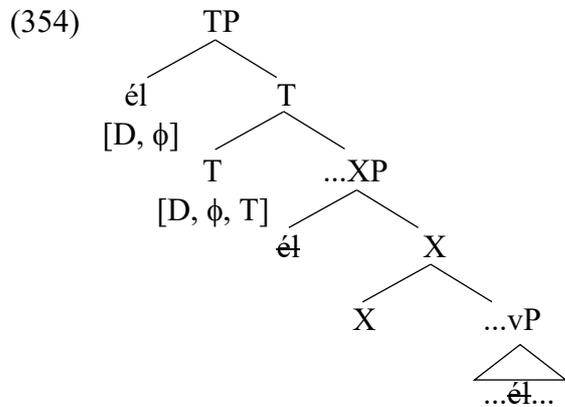
(353)
```
              TP
             /   \
         John     T
                 /   \
                T    ...XP
                    /     \
                 ~~John~~   X
                         /   \
                        X    ...vP
                              /\
                          ...~~John~~...
```

Roberts' (2010) proposal –which develops ideas in Holmberg (2005)– is to eliminate the empty category pro with an equivalent reasoning. First, he proposes that, in the same
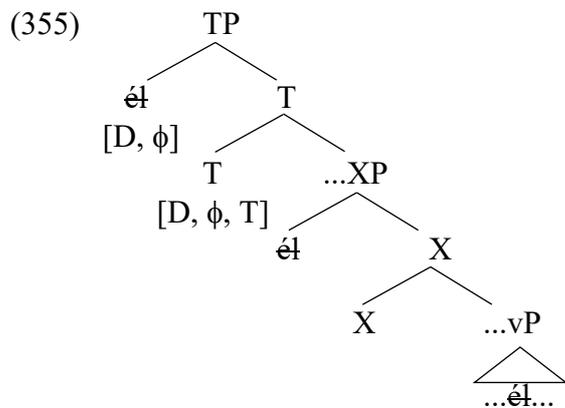
way that movement can be seen as an operation that makes copies of a constituent, agreement can be viewed as an operation that makes copies of features (2010: 60). Second, he notes that Rizzi's (1982) account, where pro is a defective category, cannot be adopted in Minimalism, if one at the same time entertains the idea that agreement with T involves uninterpretable features in T (remember that Camacho 2013, who argued precisely for this type of theory, had to redefine the agreement conditions as feature valuation).

Third, he assumes that null subject languages have a pronominal T, where 'pronominal' must be interpreted as having a D-feature in T (remember also Manzini & Savoia 2002; Holmberg 2005 proposes similar ideas) which is correlated with the presence of rich agreement. Thus, in null subject languages T contains both a rich set of phi features and a [D] feature.

On the assumption that [D] and phi features are all features that pronouns contain, this means that, when the pronoun moves to spec, TP and enters into an agree relation with T, T contains all features that the pronoun has:

(354)

```
                    TP
                  /    \
              él         T
            [D, ϕ]      /  \
                     T       ...XP
                  [D, ϕ, T]  /   \
                          e̶l̶      X
                                 /  \
                               X     ...vP
                                     /\
                                  ...e̶l̶...
```
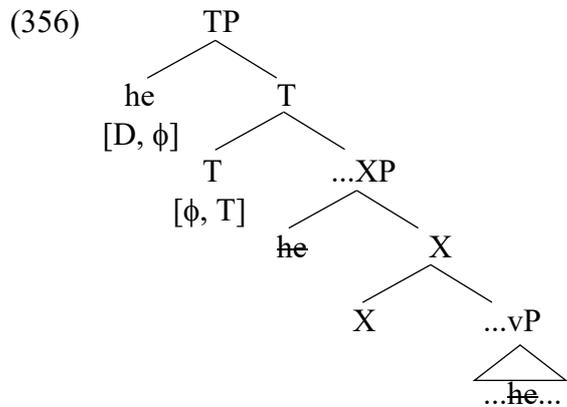
In such cases, where the agreeing element (T) contains all features that the trigger of agreement contains, we have a 'defective goal' (2010: 76) whose features are fully contained in the probe. Unless incorporation has taken place –in which case the trigger would not be in a specifier position–, in this context the pronoun can be deleted (or not get a phonological realisation):

(355)

```
                    TP
                  /    \
             e̶l̶         T
           [D, ϕ]      /  \
                    T       ...XP
                 [D, ϕ, T]  /   \
                         e̶l̶      X
                                /  \
                              X     ...vP
                                    /\
                                 ...e̶l̶...
```
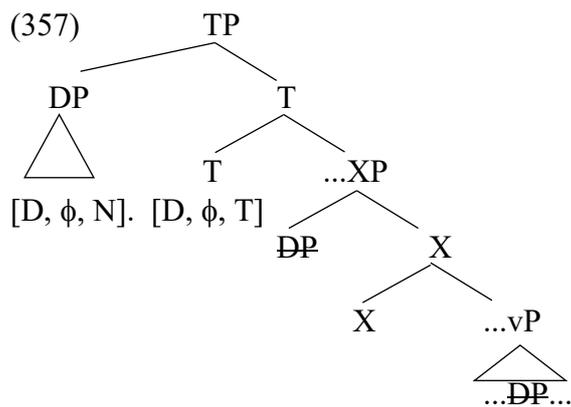
The consequence, as one wishes, is that there is no overt subject: the lower copies are deleted by the general theory of Copies, and the highest copy is deleted because the T node has copied all its features.

An overt subject language is one where T lacks a D feature. In these cases, deletion is impossible because T lacks one of the features ([D]) that the trigger of agreement has:

(356)

```
            TP
          /    \
        he       T
      [D, ϕ]    /  \
             T      ...XP
           [ϕ, T]   /  \
                  he     X
                        /  \
                       X    ...vP
                            /\
                           /  \
                          ...he...
```

Only the lower copies are erased in this case. Similarly, in a null subject language, the prediction is that any instance of a null subject is a covert instance of a pronominal expression. Full nominal phrases will not be able to undergo deletion because they will at least contain an [N] feature that T does not contain. Hence, only the lower copies will be erased for a DP that contains an NP.

(357)

```
              TP
            /    \
          DP       T
         /\       /  \
        /  \    T      ...XP
  [D, ϕ, N]. [D, ϕ, T]  /  \
                     DP    X
                          /  \
                         X    ...vP
                              /\
                             /  \
                            ...DP...
```

This is how the theory fares with respect to the generalisations noted:

(i)   Only some languages are Consistent null subject languages. To the extent that this theory also proposes that T is differently endowed in different languages, this theory can easily account for this, using different featural specifications in T that may make possible or impossible the non-realisation of the pronominal.

(ii)   Morphological richness does not immediately correlate with null subjects, at least in any obvious way. Again, this theory requires the features to be at least syntactically present in T, so mismatches between richness of inflection and availability of overt subjects must be dealt with through Late Insertion or not be covered within the theory.

(iii)   In Spanish, null subjects are compulsory with expletive verbs. The approach does not immediately address such cases, but note that –on the assumption that an expletive will have fewer features than a referential subject–, it can easily be adapted to account for the relevant cases.

(iv)   In the other cases, null subjects are not compulsory, although their overtness triggers marked information structure interpretations. Given that copies must be compulsorily not realised at PF, the approach must necessarily treat overt pronominals in a language that otherwise has null subjects as carrying extra features that are not part of the inflection. To the extent that the theory does not immediately require adjacency, moving the pronoun to a higher position above TP would not immediately solve the issue, unless that movement is triggered by an extra feature which T does not agree with.

(v)   Spanish allows overt subjects to be in spec, TP. The theory allows this, given that null subjects are in spec, TP and T is not defined as pronominal.

8.2.2. Pro as an instance of ellipsis

Roberts (2010) proposes to eliminate the need of pro by reducing agreement to copying. Saab (2016, 2020, 2024), on the other hand, proposes the elimination of pro by treating null subjects as instances of ellipsis. As is well known, ellipsis is generally treated as surface deletion of material –alternatively, non-materialisation–, even though some theories replace some cases of ellipsis with empty categories of different types (see Fábregas 2023b for an overview). The fact that at least the deletion solution for ellipsis is well-established in the literature is what allows Saab (2016) to propose that null subjects are simply instances of non-phonologically materialised arguments where the deletion is licensed by syntactic and semantic identity.

While in Saab (2016) the special property of T that singles out null subject languages is that phi features are interpretable in them (2016: 51), Saab (2024: 5) proposes that the main difference is not in the syntax, but on the morphology. Assuming a Distributed Morphology architecture, Saab (2024) proposes that languages like Spanish create a morphological position of exponence for subject agreement in the PF branch, labelled as [D]:

(358) a. trabaj-a-ba-mos
         work-ThV-past.impf-1pl
     'we worked' (imperfective)

b.
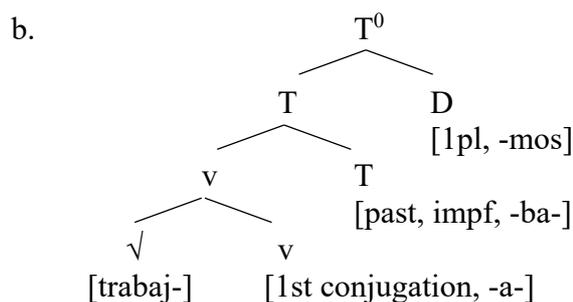
At a syntactic level, agreement between the subject and T may be identical. The difference emerges at the PF level, where no separate position for agreement is created.

Saab then combines this idea with an overarching proposal about ellipsis, which he takes to be the deletion of the variable that marks a node for vocabulary insertion (Saab 2022). If the variable, represented as Q, is deleted, the node never gets phonologically materialised because no exponent is introduced in that node, and the abstract syntactic features do not contain phonological information. The conditions that determine when Q can be erased are local in nature, with locality depending on the type of ellipsis that one is dealing with. For the case of null subjects, Saab (2016, 2022) argues that Head

Ellipsis is used. The locality conditions for the deletion of Q in head ellipsis take into account the notion of Morphological Word, and strict adjacency between the two elements.

(359) Given a morphosyntactic word MWd, delete every Q-feature contained in MWd if an only if:
    (i) There is an identical antecedent contained in a morphosyntactic word MWd'
    (ii) MWd is adjacent or immediately local to MWd'

In the case of null subjects, the pronominal subject is MWd, and the antecedent MWd' corresponds to the node hosting agreement. Once linearisation takes place, the conditions to erase the Q feature in the subject are met because the agreement node is featurally identical to the pronoun and there is immediate adjacency between the two objects –adjacency is represented as the symbol '⌢'.

(360)
$$D^0[f, Q] \frown T^0$$
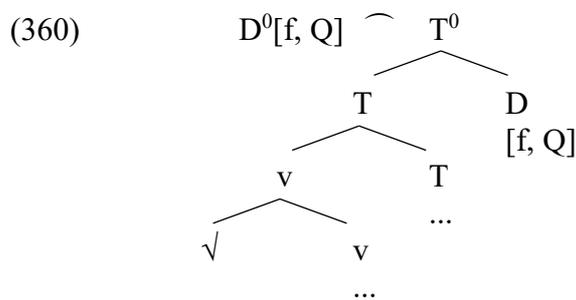
Thus, in this context it is possible to delete Q, with the effect that the subject pronoun will not be phonologically materialised:

(361)
$$D^0[f, \cancel{Q}] \frown T^0$$
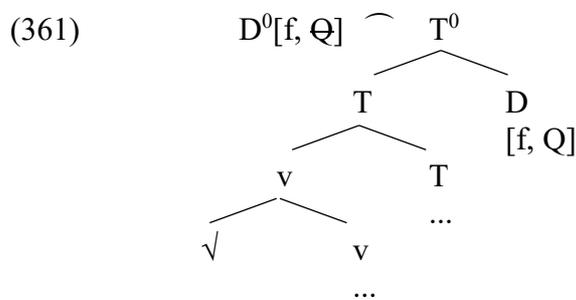
Like Roberts (2010), Saab's theory requires null subjects to be always pronominal: otherwise they would contain an N feature (and presumably not be heads), and the identity condition of Q-deletion is not met. On the other hand, it is possible for Saab (2016) to propose that cases of overt pronominal subjects involve instances where the pronominal expression is in a focus or topic position that does not meet the locality requirements, which in that case would have to be defined non-linearly. However, the parallelism with ellipsis, which is never compulsory in the better understood cases, makes it possible to have a different solution, which is essentially that the Q-deletion operation may not apply even if the conditions are met, with expected contrastive consequences in a pragmatic component.

Let us now see to what extent this theory accounts for the relevant generalisations:

(i)   Only some languages are Consistent null subject languages. The theory treats this difference as a distinction in the morphological structure that each language builds

at PF, so it is at least clearly possible to account for the distinction. It is also clear how the theory would address typological differences between types of pro-drop languages, such as the Partial pro-drop languages: each exponent in the morphological component may be associated to different sets of phi features, and in the relevant cases identity would not be met.

(ii)   Morphological richness does not immediately correlate with null subjects, at least in any obvious way. This is a particularly acute problem in this theory, because the Late Insertion option would not save the mismatches: the ellipsis applies over forms that are already defined as morphological, therefore keeping the features that later on will be materialised as exponents. The theory could still claim that some forms of mismatch are only apparent, because the exponents on the surface blur distinctions that were still present at the morphological level –but it is unclear how this would be technically done in a system with a Subset Principle (as DM is, cf. Halle & Marantz 1993) without having to invoke accidental homophony–.

(iii)   In Spanish, null subjects are compulsory with expletive verbs. It is also unclear how this can be accounted for, if the relation is identity and not a complete overlap (as in Roberts 2010). Expletives are linked to the same type of 3rd person agreement as referential 3rd person subjects, so it is not obvious how identity would work different in the two cases. Presumably, the theory would have to invoke that expletive subjects are not syntactically manifested, or some version of this idea.

(iv)   In the other cases, null subjects are not compulsory, although their overtness triggers marked information structure interpretations. To the extent that ellipsis is not compulsory and identity makes it possible but does not force it, the theory is perfectly equipped to predict that overt manifestations are associated to pragmatic effects, if identity could otherwise have licensed its non-materialisation.

(v)   Spanish allows overt subjects to be in spec, TP. The theory allows this, given that null subjects are in spec, TP and T is not defined as pronominal.

8.2.3. Null pronouns as a continuation topic

To conclude with the overview of theories which center the analysis of null subjects on some form of absence of materialisation at PF, we will now revise Frascarelli's (2007) proposal (see also Jiménez-Fernández 2016, Frascarelli & Jiménez-Fernández' 2019). Like the previous account, this one also proposes that the deletion conditions on the pronominal expression are due to information-structure requisites. However, instead of proposing a spell out rule that applies to maximal projections, this account proposes a matching relation that is similar to the one obtained in some theories of the type (ii), only that not involving T.

Frascarelli's (2007) proposal starts from a set of observations that give initial plausibility to the proposal that the overt vs. null alternation in preverbal position does not concern T but a higher, information structure-related head: the correlation with morphological richness that T-theories expect is not always found, and overt preverbal subjects, when they act as the antecedent of a coreferential null subject, display properties that are closer to the ones expected from an A-bar position than to those of the A-position of spec, TP (see §6 below).

Frascarelli's proposal is that null subjects must be hosted in a topic position, specifically the Aboutness-topic position, which determines what the utterance talks about. She assumes Frascarelli & Hinterhölzl's (2007) distinction between three types of hierarchically ordered topic heads (see Fábregas 2016 for details):

a) Familiar topic. This topic simply introduces a discourse linked entity that has already been activated in the communicative context.

b) Contrastive topic. This topic picks from a set of alternatives the entity that is familiar and presents it as having disjoint properties from the other members of the set.

c) Aboutness topic. This topic introduces the topic that the sentence is about.

The three topic positions are ordered in a hierarchy, with the Aboutness topic as the highest:

(362) Aboutness topic > contrastive topic > familiar topic

The alternation between overt and null subjects involves the Aboutness topic position. In this position, an overt element introduces topic-shift, that is, replaces the entity that the previous utterance was about with a new topic, which the new utterance is about. In contrast, a null element in that position simply marks topic-continuation, keeping the same entity that the previous utterance discussed as the topic of the new utterance also.

This immediately explains the well-known contrast between coreference and disjoint reference that we have noted in different contexts in the previous sections:

(363) a. Juan$_i$ se acercó a casa de su padre$_j$.   ø$_{i,??j}$ abrió la puerta.
       Juan SE approached to house of his dad. ø   opened the door
    'Juan approached his father's house. He (=Juan) opened the door'
    b. Juan$_i$ se acercó a casa de su padre$_j$.   Él$_{j,??i}$ abrió la puerta.
       Juan SE approached to house of his dad. ø   opened the door
    'Juan approached his father's house. He (=the father) opened the door'

Excluding a focalised reading ('only Juan'), the second sentence is more difficult to interpret as coreferential with the subject of the previous one than the first. In Frascarelli's (2007) account, in fact the overt expression *él* 'he' is not a subject, but a topic, and the second sentence cannot naturally refer to *Juan* because the pronoun shifts what the utterance talks about from Juan to his father. Conversely, the null pronominal in the first sentence would also occupy a topic position, but its null nature signals topic-continuity, so the same topic as before (*Juan*) is maintained.

The technical way in which the null vs. overt manifestation is determined is reminiscent of what some theories of type (ii) argued for null subjects, only that adapted to the Topic head. In Frascarelli (2007) the proposal is that the Topic head contains an [+aboutness] feature that must always be discharged on a specifier.

(367)   Top^{About}P
        ╱   ╲
     XP   Top^{About}
              ╱   ╲
         Top^{About} ...
      [+aboutness]
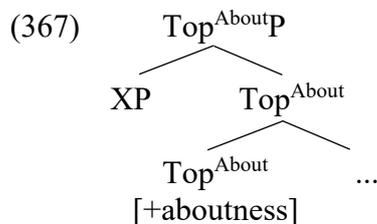
In this configuration, what Frascarelli calls the Topic Criterion (2007: 721) applies: if the specifier constituent matches the aboutness of the discourse at that point, it will be null. The topic criterion can be seen as a form of agreement, not unlike the ones proposed in some theories in §5.3 and in this section, but different from it in the type

of features involved: when there is matching between the head and the specifier, the specifier may not be pronounced.

On the other hand, if the specifier introduces a new aboutness topic that does not match the aboutness at that point –that is, shifts the aboutness topic–, then it must be overt. This automatically accounts for why null 'subjects' keep the referent and overt pronouns tend to dissociate it. The approach is also in a good position to explain why focalised subjects can be overt without changing the aboutness topic: in these cases, the constituents are in a focus –not topic– position, so the Topic criterion will not apply, by definition. Remember that, under standard assumptions, no constituent can at the same time be topic and focus.

However, Frascarelli's original proposal encounters problems for Spanish if one assumes, as Frascarelli (2007) does (see also Leonetti 2008), that topics must always be specific: as we have seen, the antecedent of null pronouns can be non-specific (§2.2.3). Jiménez-Fernández (2016), working also on the same set of basic assumptions, proposes a significant modification for Spanish that solves the issue while keeping the Topic Criterion: the null pronoun is invariable located in the canonical subject position (spec, TP), and it can be null provided that it is coreferential with any discourse category with a [+given] feature –which in practice means that information focus cannot license null subjects, but that non-specific–.

The coreferentiality is, however, intermediated by the specifier of the aboutness topic, just as predicted by Frascarelli (2007); this constituent is the one that controls the null subject –which is coreferential with it–, but it may have picked any other given discourse referent.

The interplay is nicely illustrated by the case of a null subject that picks a non-subject non-specific antecedent, as in the following example:

(368) ø$_j$ vi   una secretaria$_i$.   ø$_i$ llevaba gafas.
      ø saw.1sg   a   secretary.   ø   carried glasses
      'I saw a secretary. She had glasses'

The direct object is non-specific, at least in the sense that the speaker is not individualising it (although there must be a referent), because otherwise it would have to be prepositionally marked with differential marking *a*. Still, the interpretation where the null subject picks it as an antecedent over the subject is salient and natural.

In Jiménez-Fernández' (2016) analysis, what is going on here is that the overt argument is still non-specific, but it is picked as an Aboutness-topic by a silent element, which turns it into specific, and that is the antecedent of the null subject. Thus, the right structure of the previous sentence should be represented as follows:

(369) ø$_j$ vi   una secretaria$_i$.   <~~esa secretaria$_i$~~>   ø$_i$ llevaba gafas.
      ø saw.1sg   a   secretary.   that secretary   ø   carried glasses
      'I saw a secretary. <~~That secretary,~~> She had glasses'

The reader may have realised that the relevant notion of specificity here is not 'absence of a particular referent', but is closer to non-individuation, given that a perception verb presupposes that the perceived entity has a referent (for the subject). Remember however that instances of non-specificity in the sense of 'absence of a particular referent' also allow null subjects, as we saw in §2.2.3 above.

Let us end this section by reviewing to what extent the theory accounts for the generalisations:

(i)   Only some languages are Consistent null subject languages. The theory can easily explain this by proposing different specification of topic heads, or even by proposing that in some languages the relevant topic head is not active. It is less clear, though, how partial null subject languages can be accounted for, although it is possible that participant-related pronouns, that identify the speech participants, may have a privileged status in the CP domain, which third person participants lack.

(ii)   Morphological richness does not immediately correlate with null subjects, at least in any obvious way. The theory is completely consistent with this generalisation, because it proposes that the licensing of the null element happens at Topic, not TP. For the same reason, it is perfectly equipped to deal with Radical pro-drop languages, and the theory can in fact be viewed as a claim that Consistent null subject languages use the same devices as Radical pro-drop languages to license silent arguments.

(iii)   In Spanish, null subjects are compulsory with expletive verbs. It is not clear how the theory would deal with this –expletives cannot be aboutness topics, as they are not referential–, but the theory could be combined with independent claims about the absence of expletives in the relevant languages.

(iv)   In the other cases, null subjects are not compulsory, although their overtness triggers marked information structure interpretations. The theory clearly accounts for this, and in fact is able to reduce the effects to essentially the same type of information structure relation.

(v)   Spanish allows overt subjects to be in spec, TP. The theory accounts for this in principle, as it does not make any necessary claim about the nature of TP (subjects may pass through spec, TP on their way to TopicP). Provided the theory does not force all subjects to move to spec, TopicP, but only those that become null because they continuate the topic, the theory is perfectly compatible with the data.

At this point, we are at the end of the overview, after having discussed both the empirical and theoretical aspects. Let us then move to the conclusions.

9. Conclusions

A trivial way to end this presentation is that there are many aspects of the analysis of null subjects in Spanish that are still unclear. A less trivial way of ending it is as follows. The general overview of the patterns and theories about the phenomenon indicates that the study of null subjects can be divided in two different problems.

a) The formal conditions that make null subjects available, and sometimes compulsory, in a language like Spanish

b) The nature of the pragmatic conditions that determine the range of interpretations associated to overt subjects, when null subjects are a possibility.

With respect to the first problem, the vast majority of approaches associate null subjects to a property of the T node –or equivalent labels that correspond to heads responsible for introducing subjects in overt subject languages–. The exception is the information structure account pioneered in Frascarelli (2007), which licenses null subjects in a topic position.

Theories about the T node are less plausible from a typological perspective, if the ambition is to explain null subjects cross-linguistically as the effect of one single property or operation. The reason is that at least Radical pro-drop languages cannot be accounted for in any obvious way by a theory that explains null subjects in Spanish

through some property of the verbal inflection. From this perspective, an information structure account, which is not committed to any type of correlation with rich agreement, seems more plausible. However, to the best of my knowledge there are no facts that force the conclusion that null subjects across languages is a unified phenomenon: it is possible that null subjects in a particular group of languages are obtained by a property of T, and by different devices in other language. What these languages have in common is a surface property, and there may be different ways of arriving to the same surface situation, particularly when the surface is defined by missing (not by having) something. That is the reason why frequently theories of null subjects which involve properties in T explicitly restrict their conclusions to only some subtype of null subject language.

With respect to the second problem, the theory that should explain the interpretative effects of overt subjects in contexts where null subjects are possible, the basic observation is that the effect of an overt subject is not homogeneous. Consequently, the interpretations of null subjects, and the discourse contexts that make them felicitous, is equally not homogeneous. This is, in essence, what one would expect if the effects do not follow directly from formal features, but are the consequence of some principle of communicative economy that makes speakers interpret marked readings when the shortest utterance is not used.

Theories that attempt to unify these interpretative effects under one single label need to resort to a vague notion, like 'contrast', and the really predictive observations emerge only when different contexts are singled out and explored in detail. When these contexts are explored, contrast gets split into different subtypes, but these are only some of the ingredients of the available interpretations.

Recent work on the discourse effects of overt pronominal expressions have clearly shown that the effects can be distinct for each individual pronoun, with *yo* 'I' in a privileged role to frame the discourse context, and a broad range of interactional effects related to different expressions that may include the addressee or indirectly re-frame the role of the speaker. Research on this area is ongoing and will in all probability lead us eventually to be able to propose a more detailed taxonomy of the different types of readings that speakers associate to overt pronominal use.

Thus, I finish this overview here, hoping that it has at least contributed to clarifying the current understanding of the complex set of syntactic and pragmatic issues raised by the existence of null subjects in Spanish.

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