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THE NON-EXISTENCE OF FINITE SENTENTIAL SUBJECTS[1]
A EXISTÊNCIA/INEXISTÊNCIA DE SUJEITOS ORACIONAIS

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ABSTRACT

Sentential subjects constitute a category in all traditional, Structuralist and recent Generative Grammar. Examples of such sentences are the constituents interpreted as arguments of verbs such as parecer [to seem], acontecer [to happen], impressionar [to impress]. The usual analysis in Generative Grammar is that such constituents are internal arguments of the verb in D-structure, and that they rise to subject position by movement. This article maintains the claim that they are D-structure internal arguments, but shows that the landing position of finite sentences is an A' position. The main evidence presented is that the so-called "sentential subjects" behave exactly like adjunct sentences for extraction. The analysis retains infinitive clauses as possible subject clauses.

KEYWORDS: sentential subjects; islands; infinitive clauses; adjunct clauses; A/A'-movement.

RESUMO

Os sujeitos oracionais constituem uma categoria em todas as gramáticas tradicionais, estruturalistas e gerativistas. Exemplos de tais orações são constituintes interpretados como argumentos de verbos como *parecer*, *acontecer*, *impressionar*. A análise gerativista usual considera tais constituintes como argumentos internos do verbo na estrutura D (profunda), que sobem para a posição de sujeito por movimento. Este artigo mantém a proposta de que eles são argumentos internos na estrutura-D, mas mostra que a posição de pouso das sentenças finitas é uma posição A' (não argumental). A principal evidência apresentada é a de que os chamados "sujeitos oracionais" se comportam exatamente como adjuntos oracionais nos casos de extração. A análise mantém as orações infinitivas como possíveis orações subjetivas.

PALAVRAS-CHAVE: sujeitos oracionais. ilhas, orações infinitivas; orações adverbiais; movimento A/A'

Proposal: this paper presents an analysis of the status of the constituents in bold in (01), (02), (03) and (04):

(01)   a. *Que Maria esteja grávida é inconcebível.* [**That Maria be pregnant** is inconceivable.]

b. *Que chova tanto nesta época do ano* não agrada a ninguém. [**That it rains so much at this time of year** does not please anyone.]

(02)   a. *A Maria estar grávida é inconcebível.* [**Maria's being pregnant** is inconceivable.]

b. *Chover tanto nesta época do ano* não agrada a ninguém. [**That it rains so much at this time of the year** does not please anyone.]

(03)   a. É inconcebível *que Maria esteja grávida.* [It is inconceivable **that Maria is pregnant**.]

b. *Não agrada a ninguém* **que chova tanto nesta época do ano**. [It does not please anyone **that it rains so much at this time of year**.]

(04)   a. É inconcebível *a Maria estar grávida*. [It is inconceivable that **Maria is pregnant**]

b. *Não agrada a ninguém* **chover tanto nesta época do ano**. [It does not please anyone **to rain so much at this time of the year**.]

According to traditional grammars, the constituents in bold are clausal subjects. In (03) and (04), the clausal subject is placed after the predicate. Infinitives are regarded as reduced clauses. Mattoso Câmara also examines them as clausal subjects[4]. Even verbs that admit only one argument-clause that appears to the right, as is the case with the impersonal verbs such as *parecer* (to seem) and *acontecer* (to happen), are analysed as having a clausal subject:

(05)   a. *Parecia* **que o morro se tinha distanciado muito**. [It seemed **that the hill had receded a long way**.]

(Graciliano Ramos, cited in Rocha Lima, 1972)

b. *Parece* **que da vida as fontes mais fáceis correm**. [It seems **that the springs of life flow easier**.]

(Dias, Obras, I, 314, cited in Mattoso Câmara, 1968)

The first author to contest the traditional analysis in Portuguese and consider such subordinates as subjects, was Quicoli (1972), working within the standard Generative Theory model[5] and drawing on the ideas of Emonds (1970) and his principle that changes preserve

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4 "Subordinate conjunctional clauses can be integral (corresponding to the **subject**, complement or pre-dicate of the main clause) or circumstantial (corresponding to circumstantial complements of the main clause)." (MATTOSO CÂMARA, 1968:291, 3rd ed). (our emphasis)

5 For English and for Dutch, see similar proposal and arguments in Koster (1978).

structure[6]. The purpose of this study is to situate Quícoli's proposal within the current framework of Generative Theory, particularly as proposed by Kayne (1994), showing that these constituents are selected as <u>complements</u> in D-structure. It will be shown that these subordinate clauses can be topicalised to a position on the left periphery of the sentence, where they display a behaviour typical of a syntactic <u>adjunct</u>. This explains why the post-verbal order of these constituents is not at odds with how a subject is expected to behave. Contrary to Quícoli's hypothesis, however, it will be shown that infinitives are <u>complements</u>; and a new proposal will be presented regarding the place where expletives are inserted in impersonal constructions. The sections below will offer arguments in favour of this analysis.

The endocentricity principle

The first study to note the problem of considering clauses as subjects was Jacobs & Rosenbaum (1968) (from here on, J&R). Ahead of the X-bar theory, they rejected the notion that a "Noun Phrase" (NP) could be rewritten as "Sentence" (S), as in (06a). Given the mandatory presence, in English, of the expletive pronoun *it*, which appears in impersonal sentences, they proposed that the nucleus of that subject is the expletive, categorised as "Noun" (N), and that the clause with subordinator is its complement, as in (06b).
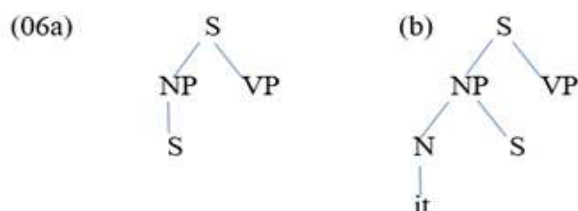
Then the **extraposition** rule was proposed, resulting in the postponed subject. That rule would account for other constructions such as the extraposed relative in (07) and the extraposed completive in (08):

(07)   a. *Alguém que ninguém conhece acaba de entrar*. [Someone whom no-one knows has just entered.]

        b. *Alguém ___ acaba de entrar, que ninguém conhece*. [Someone has just come in whom no-one knows.]

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6 To Emonds, that principle may be violated only in the root sentence, where he distinguished root rules and structure-preserving rules.

(08)   a. *A conclusão (de) que Maria está grávida chocou a todos*. [The conclusion that Maria is pregnant shocked everyone.]

   b. *A conclusão __ chocou a todos, que Maria está grávida*. [The conclusion shocked everyone that Maria is pregnant.]

Jacobs & Rosenbaum (1968) saw a parallel between this type of phenomenon and what occurs in impersonal sentences in English, leading them to propose (09), where the *it* acts as a nucleus of what is between square brackets and where (09b) derives from (09a):

(09)   a. *[It that Betty is pregnant] has shocked everyone.

   b. It __ has shocked everyone that Betty is pregnant.

   c. That Betty is pregnant has shocked everyone.

English also offers the possibility of having the subordinate clause in sentence-initial position, as in (09c), but in that case the *it* is necessarily elided. J&R offered no explanation for this. They extended this approach to clauses with sentential complements, where the complement may appear with or without the expletive *it.*

(10)   I hate (it) that Bill knows her better than me.

The same representation was proposed for cases where the form corresponding to (09c) does not exist – that is, impersonal constructions, where extraposition is considered mandatory:

(11)   a. *[It that Betty is pregnant] seems.

   b. It __ seems that Betty is pregnant.

   c. * That Betty is pregnant seems.

As Portuguese permits non-referential null subjects (cf. DUARTE, 1995; CYRINO, DUARTE e KATO, 1996; NEGRÃO e MÜLLER, 1996), a null subject (*pro*) can be postulated in the sentences in (03) and (04). In both English and Portuguese, the subject is regarded as a pronominal element and not a subordinate sentence.

(09)   b. It _____ has shocked everyone that Betty is pregnant

(03)   b' pro ___ *não agrada a ninguém que chova tanto*. (It does not please anyone that it rains so much.)
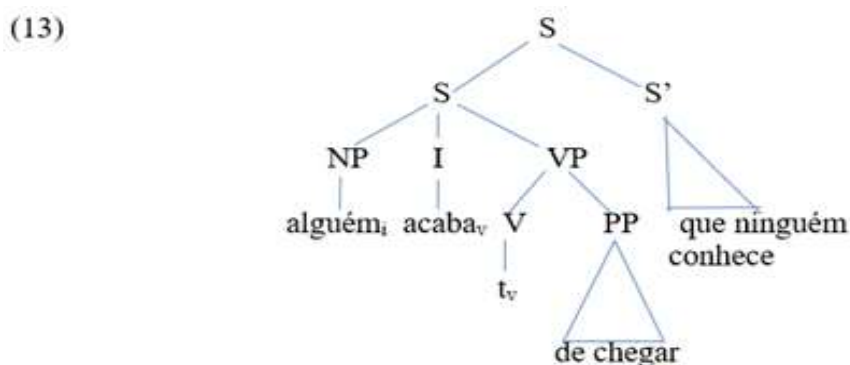
Perini (1995) offered an interesting alternative solution so that representation of impersonal sentences would meet the endocentricity requirement. He considered the conjunction *que* (that) to be a nominaliser of the sentence. Although he does not offer the X-bar representation of his conception, it can be visualized as [12]:

(12)

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              S
            /   \
         NP      VP
        /  \
      N     S
      |
     que
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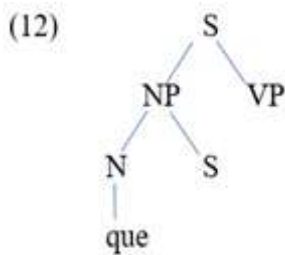
In today's terms, however, that analysis poses a problem for case theory. If *que* is a noun or if the sentence is a Noun, it should satisfy the nominative case in the subject position. Why then would the subordinate sentence move right, optionally in the cases seen in (01) to (04) and mandatorily in the case of *parecer*? In the now classic analysis by Stowell (1981), it is clear that nouns demand case, but sentences do not.

Meanwhile, the analyses by both J&R and Perini – representation (12) is used for the latter's ideas – are situated at a stage in the theory when movements could occur to both left and right[7].

In Baltin (1981) also, movement is conceived as displacement to the right in the cases (of extraposition) of relatives. To Baltin, the issue is the landing place of these constituents extraposed out of the subject. His proposal is that they adjoin to S.

(13)

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                        S
                     /      \
                   S          S'
                /  |  \      / |
              NP   I   VP   que ninguém
                        / \    conhece
                       V   PP
              alguémᵢ acabaᵥ
                       |
                      tᵥ
                       de chegar
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Extraposition re-interpreted as movement to the left

Since the late 1970s, when it was first being postulated that movements leave vestiges (traces) and that traces need to be c-commanded by their antecedent[8], movements came to be seen as being to a higher position in the structure, to the functional skeleton to the left. Accordingly, instead of talking about, for instance, subject postponement in the case of ergative/unaccusative verbs, it was proposed that the sole argument of such verbs arises from their complement, to the right, where it receives a θ role, then rising to the position of subject of I (Inflection = Tense

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7 With the exception of infinitive clauses, as will be shown below.
8 The first to propose the existence of traces was Lightfoot (1976).

+ Agreement) to be assigned the nominative case. In that way, the trace left by the NP forms a chain with it in which the NP with case c-commands its trace with θ role, as represented in (14b). In the postponement version, in representation (14a), it is the trace that c-commands its antecedent, which would be contrary in principle to the nature of chains. Using t (trace) for the gap left by the movement gives:

(14)   a. [$_{IP}$__ INFL [$_{VP}$ cozinhar a batata]]

          b. [$_{IP}$ *A batata*$_i$ *cozinhou* [t$_v$ t$_i$]]

Kayne (1994) made a radical proposal: to restrict to the left the direction of all and any movement, and he also postulated that the linear order mirrors the asymmetrical c-command relationship. Accordingly, if an item A c-commands an item B asymmetrically, then A must precede B in linear order. On that theory, which he called the Linear Correspondence Axiom, Kayne endeavoured to reanalyse the apparent cases of movement to the right (as is the case with extraposition and also displacement to the right). As regards extraposition, Kayne addresses only extraposition of relatives.

Let us take the relatives in (07), repeated here as (15):

(15)   a. *Alguém que ninguém conhece acaba de entrar*. [Someone whom no-one knows has just come in.]

          b . *Alguém __ acaba de entrar, que ninguém conhece*. [Someone has just come in whom no-one knows.]

The derivation proposed by Kayne (1994) takes as its starting point a form in which the relativised NP arises to the right of the verb and can move in full to the subject position or merely to the head of the relative *alguém* (someone), because it is that word that satisfies the nominative case in that position. Instead of (15), this then gives (16):

(16)   a. *Acaba de entrar alguém que ninguém conhece*. [has just come in someone whom no-one knows.]

          b. [*Alguém que ninguém conhece*]$_i$ *acaba de entrar* t$_i$. [someone whom no-one knows has just come in.]

          c. [*Alguém*]$_i$ *acaba de entrar* [t$_i$ *que ninguém conhece*] [someone has just come in whom no-one knows.]

These constructions seem to be possible whenever the subject is postponed, which is not the case with transitive constructions in Brazilian Portuguese, in which the postponed subject is blocked[9].

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9 See below what the position of this postponed subject is postulated to be.

(17)   a. *Telefonou alguém que ninguém conhece.* [telephoned someone whom no-one knows.]

b. [*Alguém que ninguém conhece*]i *telefonou* tᵢ. [someone whom no-one knows telephoned.]

c. *Alguém*ᵢ *telefonou* [tᵢ *que ninguém conhece*] [someone telephoned whom no-one knows.]

(18)   a.?? *Comeu o bolo hoje alguém que ninguém conhece.* [ate the cake today someone whom no-one knows.]

b. [*Alguém que ninguém conhece*]ᵢ *comeu o bolo hoje* tᵢ [someone whom no-one knows ate the cake today.]

c.* *Alguém*ᵢ *comeu o bolo hoje* [tᵢ *que ninguém conhece*]. [someone ate the cake today whom no-one knows.]

The extraposed position may at first be supposed to originate at the moment the verb and the subject generated within the VP rise to the functional skeleton. The subject as a whole may rise (19a) or only the head of the relative (19b).
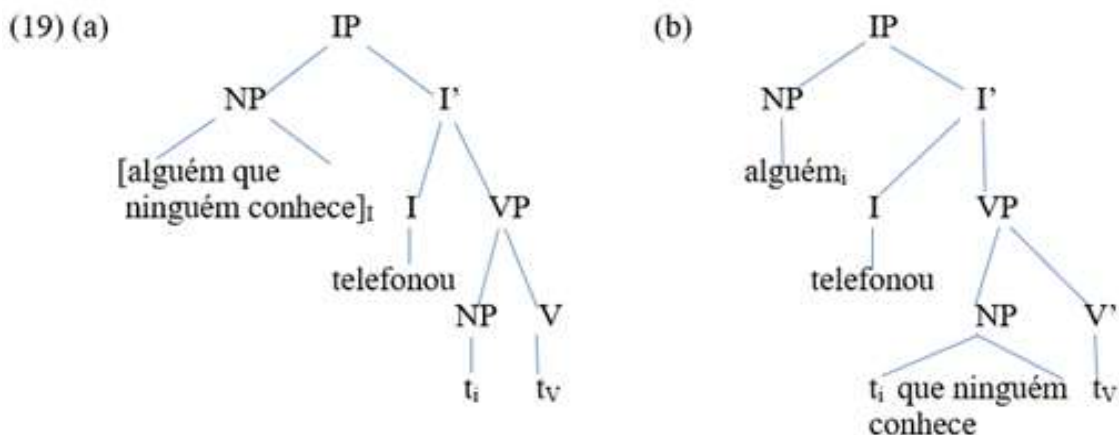
In the case of compound tenses, as with the auxiliary that appears in I to produce inflection[10], the main verb should appear after the extraposed relative, which does not occur.

(20)   a. [ₗₚ *tinha* [*alguém que ninguém conhecia telefonado*]] [had [someone whom no-one knew telephoned]]

b. *[ₗₚ *Alguém*ᵢ *tinha* [tᵢ *que ninguém conhecia telefonado*]] [someone had [whom no-one knew telephoned]]

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10 This article will not go into discussing where the auxiliary originates. There are two possible alternatives: a) it appears as an unaccusative verb or b) it is inserted as inflection.

If, however, an Aspectual projection (ASPP) is inserted for aspect, the movement can start from the position of the subject internal to the VP[11]

(20)   b'. [IP *tinha* [ASPP *alguém*i *telefonado* [ti *que ninguém conhecia* tv]]] [had [someone telephoned [whom no-one knew]]]

The next section will propose a new analysis for clausal subjects, following Kayne's proposal for extraposition. First, however, it will present the proposal by Kato (1998) for pronouns and their doubling, which will help in understanding the relationship between the expletive and the subordinate clause.

Clausal subjects as secondary predicates raised to an A' position

Weak pronouns and their doubling by strong pronouns or displaced DPs

Many languages display the phenomenon of clitic doubling/reduplication before a strong pronoun, which Kato (op. cit.) considers essentially of the same kind as the phenomenon of DP displacement[12] to the right or to the left. Take the first and second examples from Spanish in (21):

(21)   a. *Lo*i *vi a el*i.

        b. *Lo*i *vi a Juan*i.

Soriano (1989) argued that the subject pronoun can also be doubled in Spanish, except that, in this case, the weak pronoun is null:

(22)   *Yo*i proi *comi la torta*.

Kato (1998) showed that subject pronoun doubling is more visible in non-null subject languages, because the weak nominative pronoun appears mandatorily and the strong pronoun that doubles it is not nominative:

(23)   a. *Mo*i, *je partirai demain*.

        b. Me, I will leave tomorrow.

Brazilian Portuguese, which is losing the referential null subject (cf. DUARTE, 1993, 1995), ceases to have *pro* and, since its strong pronoun is nominative, the doubling sounds like repetiion. In displacement, meanwhile, the weak pronoun necessarily appears.

(24)   a. *Eu, eu já vou*. [Me, I am going now.]

        b. *O Pedro, ele já foi*. [Pedro, he has already gone.]

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11 We thank Jairo Nunes for pointing out this possibility.
12 Kato (1998) gives arguments for considering it the same phenomenon, although Cinque (1990) considers them different.

In the same study, it is proposed that the element displaced originates in a secondary equational predication of the type [ele o Pedro], [eu EU][13] with no copula. In other words, the strong pronoun and the displaced DP are, in fact, secondary predicates removed from their place. Together with its trace, it forms a chain that maintains the predication relationship with the pronoun that appears in the body of the sentence, as shown in (25).

(25)   a. [IP [DP *ele*i *o Pedro*i] *já foi*]

         b. *O Pedro*i [IP [DP *ele*i ti] *já foi*]

The form of equational predication

Let us look at the internal structure of the small clause [DP elei o Pedroi], which also underlies a full equational clause with copula, of the type in (26) a[14]:

(26)   a. *Ele é o Pedro*. [He is Pedro.]

         b. [IP é [DP *ele*i *o Pedro*i]

In the same way that V ceased to be seen as the sentential nucleus, with that role passing to the functional category, I, which has features of tense, the nominal arguments cease to have N as nucleus, with that function passing to D (determinant). Therefore, in the mini-clause above, *o Pedro* is a DP, whose nucleus is the article. If [*ele*i *o Pedro*] is also a DP, what would its place be? There are two possibilities: (a) *ele* is a specifier of the article (27a) or (b) *ele* is a nucleus D with the DP [DP *o Pedro*] as complement (27b).
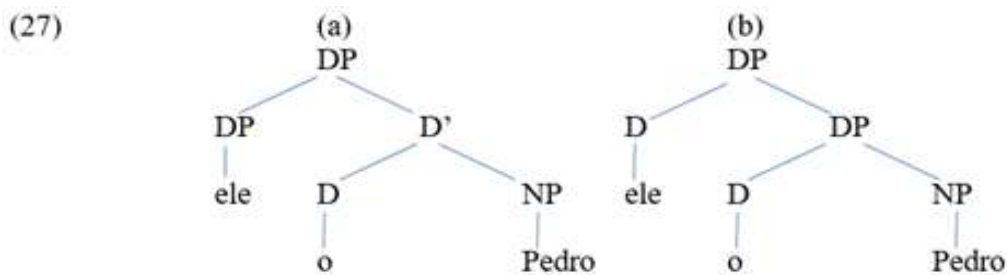
Note that it would be syntactically impossible to move o Pedro from (27a), because it does not constitute a maximal projection, though the same restriction is not incurred in (27b), where it constitutes an XP. In addition, in (27a) o Pedro is interpreted syntactically as an unsaturated expression, which is typical of predicates. Although o Pedro is syntactically a predicate, it is a referential element, unlike um poeta in Ele é um poeta. From both syntactic and semantic standpoints, then, alternative (27b) is the most appropriate to represent an equational

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13 The pronoun in lower case is weak; the one in upper case is strong. When the equational clause is full, it is the strong pronoun that appears as predicative (eu sou EU), with primary stress. Note that only the post-verbal pronoun, like any strong pronoun, can be focalized.

14 Note that the mini-clause has no copula. This is a verb outside the mini-clause.

predication. The proposal must also assume that, in (26), ele is a minimal non-maximal category before the movement and that, after the movement, it becomes a minimal maximal category[15][15].

In a rather different sense from that proposed by Kato, but with similar presuppositions as to DP composition, Kayne (1998) argues that the DP can be structured as [DP [Spec O João] [D ele]]. In binding contexts, o João shifts to an A position, from which it c-commands ele:

(28)   a. — *disse que* [DP *o João ele*] *gosta de Maria*

b. *O João*$_i$ *disse que* [DP t$_i$ *ele*] *gosta de Maria*

Note that Kato's proposal is to treat the pronoun-DP relationship as predication, while Kayne's is to treat it as a binding relationship with, more specifically, the possibility of a pronoun in the subordinate clause being a constituent in the matrix. The representation proposed by Kayne can be derived from Kato's proposal by moving the DP to the SpecD position. Accordingly, for configurations of type (28), the DP could be after the pronoun before being moved, as seen in the representation [DP *João*$_i$ [D' *ele*[t$_i$]]].

Derivation of the expletive subject[16]

In this section, an analysis parallel to that of displacement and doubling will be performed for impersonal sentences. The expletive **it** is conceived as a weak pronoun whose predicate is a sentence, both forming a secondary predication, a mini-clause, parallel to the equational predication that holds between **o Pedro** and the pronoun **ele**. The difference is that, in this case, one has a third-person pronoun element as the nucleus of the DP and a CP as predicative complement, as in (29). In English, this element is the neutral pronoun **it**; in Portuguese, it is the *pro* null pronoun.

(29)   a. [DP it$_i$ [CP that IP]$_i$]

b. [DP pro$_i$ [CP *que* IP]$_i$]

The proposal by J&R for extraposition of the subject can now be re-examined using Kayne' theory and the theory for the expletive set out above. Let us start with English, a language where the expletive is explicit:

(30)   a. It seems that Betty is pregnant.

b. [IP ____ [VP seems [DP it$_i$ [CP that Betty is pregnant]$_i$]]]

c. [IP It$_i$ [VP seems [DP t$_i$ [CP that Betty is pregnant]$_i$]]]

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15 This now assumes the Minimalist proposal that an element can be minimal and maximal at the same time. Thanks to Jairo Nunes for this observation.

16 A preliminary version of these ideas was presented in M. A. Kato's communication "Uma tipologia de pronouns nulos na Gramática do Português falado" [A typology of null pronouns in the grammar of spoken Portuguese"], Campos de Jordão, 1995.

Unlike the conventional analysis, in which the expletive is inserted directly in SpecI, in the analysis proposed here, it is raised within the complement of seems. The θ-role of the verb is assigned to the DP as a whole, whose substantive content is given by the mini-clause and whose referential content is given by the nucleus, which is the neutral pronoun. The latter's role is similar to that of the article of a DP or a pronoun in an equational mini-clause[17]. The verb to seem is considered an unaccusative verb and thus lacks the capacity to assign accusative case to its complement. The DP requires case. The pronoun it rises from the nucleus of the lower DP to the nucleus of the upper DP, where it receives the I case.

The following statements hold for Portuguese: (a) the V rises to the I, unlike English, whose verb remains in V; and (b) the null expletive rises to the subject position of I.

(31)   a. *Parece que a Betty está grávida*. [It seems that Betty is pregnant.]

         b. [$_{IP}$ ____ I [$_{VP}$ *parecer* [$_{DP}$ pro [$_{CP}$ *que a Betty está grávida*]]]

         c. [$_{IP}$ pro$_i$ *parece* [$_{VP}$ tv [$_{DP}$ t$_i$ [$_{CP}$ *que a Betty está grávida*]$_i$]]]

Note that the analysis with the expletive subject is identical in motivation to that given to personal sentences with **parecer**, as in (32): the AP subject rises to the SpecI position to obtain case.

(32)   a. *Ela parece triste*. [She seems sad.]

         b. [$_{IP}$ ____ I [$_{VP}$ *parecer* [$_{AP}$ *ela* [$_{A'}$ *triste*]]]

         c. [$_{IP}$ *Ela*$_i$ *parece* [$_{VP}$ t$_v$ [$_{AP}$ t$_i$ [$_{A'}$ *triste*]]]

Note that the subject of the AP mini-clause in turn can be an equational DP mini-clause of the type [**ela a Joana**]. In that case, it rises to the position of subject of **parecer** and **Joana**, as the predicate of the mini-clause, goes to the displaced position[18]:

(33)   a. [$_{IP}$ ____ *parece* [$_{AP}$ [$_{DP}$ *ela*$_i$ *a Joana*$_i$] *triste*]]

         b. *A Joana* [$_{IP}$ *ela parece* [$_{AP}$ [t*ela* t$_{Joana}$] *triste*]]

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17 An interesting study of the null expletive in Catalonian is presented in Picallo (1998), to whom the null expletive should not enter into the numeration, because it has no effect on either phonetic output or logical form. Her proposal is that sentences with null expletives do not project the SpecIP. In this study, it is assumed nonetheless that the expletive is interpreted in the logical form.

18 Note that, in the cases below, parecer can also have a clause to the left, as with psychological verbs, providing that the clause is the argument of another predicate. As predicate, it will also appear in position A'. It can be assumed that predicates do not have the same boundary constraints as arguments.

[i]   a. Parece um ato de justiça [que Pinochet seja extraditado] [It seems an act of justice [that Pinochet be extradited]]

       b. [que Pinochet seja extraditado] parece um ato de justiça. [that Pinochet be extradited] seems an act of justice]

       c. [CP que Pinochet seja extraditado] [IP proi parece [[ti tCP] um ato de justiça].

[ii] a. Parece justo [que Pinochet seja extraditado] [It seems just [that Pinochet be extradited]]

       b. [que Pinochet seja extraditado] parece justo [[that Pinochet be extradited] seems just]

However, as shown, there are sentences in both English and Portuguese in which the subordinate clause can appear in the sentence-initial position[13]:

(34)   a. It annoys me that Bill is late.

b. That Bill is late annoys me.

(35)   a. *Me aborrece que o Pedro esteja atrasado*. [It annoys me that Pedro is late.]

b. *Que o Pedro esteja atrasado me aborrece*. [That Pedro is late annoys me.]

Verbs such as aborrecer [annoy], impressionar [impress] and divertir [entertain] are called psychological and the conventional analysis is that they are double-object ergatives (cf. RIZZI e BELLETTI, 1988), that is, both a internal arguments of the verb, at the start of the derivation. The subject of the annoyance or entertainment can be a nominal phrase , such as a notícia [the news] in (36), or a clause, such as [que o Pedro esteja atrasado] [that Pedro is late], in (35)[19].

(36)   a. *Me aborreceu a notícia*. [It annoyed me the news]

b. *A notícia me aborreceu*. [The news annoyed me.]

Leaving aside the representation of the experiencer, which in (36) appears as clitic, it can be said that the the English sentences (34) can be analyzed in the same terms as the sentence with **seem** in (30).

(37)   a. [IP ___ [VP annoys me [DP it i [CP that Bill is late]i]]]

b. [IP It [VP annoys me [DP t it [CP that Bill is late]i]]]

In the same way, the Portuguese sentences in (35) align in analysis with the sentences with ***parecer***, and admit the null expletive:

(38)   a. [IP ___ *me aborrece* [DP proi [CP *que o Pedro esteja atrasado*]i]]

b. [IP pro *me aborrece* [DP t pro [CP *que o Pedro esteja atrasado*]i]]

How then is one to explain the case where the subordinate clause appears in the initial position? Let us begin with the case in Portuguese. It can be assumed that the subordinate clause rises to a displaced position to the left, in the same way as a DP predicate rises, as in (25), repeated here as (39). The difference is that in (40) there is a **pro** instead of the pronoun *ele*.

(39)   a. [IP [DP *ele o Pedro*] [*já foi*]] [He Pedro has already gone]

b. *O Pedro*i [IP [DP *ele* t] [*já foi*]] [Pedro he has already gone]

(40) [CP *Que o Pedro esteja atrasado*] [IP [DP pro tCP] *me aborrece* [tDP]]

How is one then to explain the case in English, which so far has been assumed to have a mandatory subject? Note, however, that English admits a sentence of the type (41a), while (41b) is not possible, with an expletive:

(41) a. Under the bed is the best place to hide the money.

b.* Under the bed **it** is the best place to hide the money.

Let us admit that, in very special contexts, English can have an expletive deleted, possibly as a vestige of its Germanic origin and its old V2 structure. Remember that German admits the null expletive when the impersonal sentence has some constituent that can start the sentence. To summarise, the analysis that will be applied to sentences with an apparent clausal subject in English will be the same as assumed for Portuguese.

One case that may be suggested, contrary to the hypothesis advanced here, is that the subordinate sentence is actually the subject in passives with a clausal complement.

(42) a. *Foi confirmada a notícia.* [It was confirmed the news.]

b. *A notícia foi confirmada.* [The news was confirmed.]

c. *Foi confirmado que houve falcatruas na negociação.* [It was confirmed that there was cheating in the negotiation.]

d. *Que houve falcatruas na negociação foi confirmado.* [That there was cheating in the negotiation was confirmed.]

Given the parallel between (42a/b) and (42c/d), the subordinate clause in (42d) can be said to be in subject position. Quícoli (1972) argued that, even in these cases, the subordinate clause cannot be said to be in subject position, and contrasted (43a) and (43b)[20]:

(43) a. *Eu disse que a notícia foi confirmada.* [I said that the news was confirmed.]

b. **Eu disse que que houve falcatruas na negociação foi confirmado.* [I said that that there was cheating in the negotiation was confirmed.]

Quícoli regards clause movement as a root rule, not as structure-preserving. Generally, this type of operation results in a prosodic change or in marked prosody. Therefore, (43b) would be malformed, because the clause-movement operation occurred within the subordinate clause, where changes must be structure-preserving. In (43a), meanwhile, what moved within the subordinate clause was a nominal phrase. Accordingly, its movement to subject of the subordinate clause preserves the structure, and its prosodic contour is unmarked.

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20 The examples here belong to the authors.

If, however, the subordinate sentence is complement to a noun within a DP, the prediction is that the two positions are possible, because the movement is structure-preserving. This can be seen below:

(44)   a. *Eu disse que foi confirmada a suspeita de que houve falcatruas na negociação*. [I said that it was confirmed the suspicion that there was cheating in the negotiation.]

         b. *Eu disse que a suspeita de que houve falcatruas na negociação foi confirmada*. [I said that the suspicion that there was cheating in the negotiation was confirmed.]

A more recent formulation of this constraint appears in ***Barriers*** (CHOMSKY, 1986), where adjunction to the IP is excluded. Note, however, that if the nominal phrase is moved to the position between the complementiser and the subject, the result is a grammatical sentence, which shows that such a movement must be treated as structure-preserving. If there is assumed to be a topic phrase (TopP) node between the CP and the IP (RIZZI, 1997 and FIGUEIREDO SILVA, 1996), then the topic-movement rule will be structure-preserving, and can occur in a subordinate clause.

(45)   *Eu disse que* [TopP *O Pedro*i [IP *a Maria não esteve com* [DP *ele*i ti].

Unlike a DP, however, a CP clause seems not to qualify for the topic function, which then means that it cannot satisfy the features of the Top nucleus[21]. The CP movement must have another type of motivation. One could consider the Adjacency Principle for assigning case, as proposed by Stowell (1981). CP can be seen as a barrier to the inflection of I's assigning (or checking) nominative case for the expletive. But that barrier would not need to exist if the expletive rose on its own, with no "pied-piping" of the CP in that ascent. That would be the most economic derivation, because assignment of case involves the expletive alone. All the rest would be deadweight and its rising would be pointless, in breach of the economy postulate. This leads us to restate the derivation proposed in (40) and to argue that the movement of the clause to the sentence-initial position occurs directly from its original position:

(40)   ' [CP *Que o Pedro esteja atrasado*] [IP ***pro** me aborrece* [VP **tv** [**tpro tCP**]]]

There remains the question of the motivation for the movement of the subordinate clause. Note that, in the sentence intonation marked with the clause placed before, that clause is removed from the locus of focal, primary stress. Capitalising the focal, stressed segment in the two forms gives:

(46)   a. *Me aborrece* [*QUE O PEDRO ESTEJA ATRASADO*]

         b. [*Que o Pedro esteja atrasado*] *ME ABORRECE*

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21 The Top nucleus can be assumed to require checking of something like the [+referential] feature or even a strong-D feature, which cannot be satisfied by CP.

The adjunction movement that was being proposed here thus has to do with what Zubizarreta (1998) has been calling P-movement, an operation that is immune to the principle of economy[22]. The next section will present arguments asserting that, in the post-verbal position, the subordinate clause behaves as a complement and that, in the initial position, it behaves as an adjunct.

The extraction criterion

Following Quícoli (1972), it is proposed here that there is no such thing as a sentential subject. That proposal prevents CP from functioning as a subject and eliminates what, in traditional terms, constitutes a subject clause. The discomfort of the concept of a sentential subject would be averted and there would be no need to analyse as a subject something that displays properties which, overall, are improper in a subject: it appears in a post-verbal position (if it appears before the verb, it necessarily gains marked intonation) and has nothing to do directly with the nominative, which is proper to DPs. In such cases, the SpecIP, which is the canonical position for the subject, is occupied by an expletive (a null pronoun in Portuguese and a null subject in other languages).

If a clause-initial CP, as in (40), is treated as an adjunct, it will be explained why the so-called clausal subjects behave as "islands" for purposes of extraction of, for instance, interrogative expressions. It is thus a well-known fact that adjunct clauses are "islands" for extraction, while complement clauses are not. Proof of this can be seen in the contrast between (47) and (48):

(47)   a. *Maria acredita que a polícia falou com quem?* [Maria believes that the police talked to whom?]

b. *Com quem*i *Maria acredita que a polícia falou* ti? [To whom does Maria believe that the police talked?]

(48)   a. *Maria acredita na polícia porque falou com quem?* [Maria believes in the police because she talked with whom?]

b. **Com quem*i *Maria acredita na polícia porque falou* ti? [With whom Maria believes in the police because she talked?]

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22 Note that, if it is assumed that the expletive rises to satisfy the case of the matrix I, nothing would require the CP to rise. Here, in fact, the CP rises so that the VP can be interpreted as Focus, an operation that apparently violates the greed principle. Zubizarreta (1998), however, argued that P-movement (which is prosodically motivated and not motivated by checking) is not subject to the notion of economy. An alternative approach, framing that movement as a checking operation, is given by Rizzi (1997), to whom the left periphery can code the new information (focus) or the old information (topic). From that perspective, the displaced sentence can be simply a topic (in Spec of TopP which has null Top) in the expanded version of CP.

There was a time when subject clauses were also said to be islands (cf. ROSS, 1967). If the subordinate clause in sentences with **parecer** were a subject, extraction of an interrogative element from within it should result in agrammaticality. That is not what happens, however:

(49)   a. *Parece que a Polícia esteve falando com quem?* [It seems that the police were talking with whom?]

b. *Com quem*i *parece que a polícia esteve falando* ti? [With whom does it seem that the police were talking?]

The grammaticality of [49b] shows that **com quem** was extracted from a complement. Examples will now be given in which the subordinate clause occurs after the verb or at the start of the sentence and interrogative extraction from within those positions will be tested:

(50)   a. *Te aborrece que o Pedro sempre confie em quem?* [It annoys you that Pedro always trusts in whom?]

b. ?*Em quem*i *te aborrece que o Pedro sempre confie* ti ? [In whom does it annoy you that Pedro always trusts?]

(51)   a. *Que o Pedro sempre confie em quem te aborrece?* [That Pedro always trusts in whom annoys you?]

b.* *Em quem*i *que o Pedro sempre confie* ti *te aborrece?* [In whom that Pedro always trusts annoys you?]

The contrast between (50b) and (51b) is clear. (50b) is not 100% good, because the verb **aborrecer** [to annoy] is factive and complements of factive predicates constitute weak islands (CINQUE, 1990). Note that, if the predicate is not factive, extraction of the post-verbal subordinate clause results in an absolutely well-formed sentence:

(52)   a. É possível que Pedro confie em quem? [It is possible that Pedro trusts in whom?]

b. *Em quem*i é possível que Pedro *confie*ti? [In whom is it possible that Pedro trusts?]

It may not be idle to complete the paradigm here with the clause to the left and to note that, in that position, the extraction continues to be impossible:

(52)   c. *Que o Pedro confie em quem é possível?* [That Pedro trusts in whom is possible?]

d. **Em quem*i *que o Pedro confie* ti é possível? [In whom that Pedro trusts is possible?]

Returning to (51b), the agrammaticality of extracting the interrogative element from within its subordinate clause is considered to result from the latter's being an adjunct clause. Below, are data from Brazilian Portuguese that support the analysis proposed here.

To the extent that Brazilian Portuguese loses the properties of a null-subject language, there is a tendency to fill the initial position in impersonal sentences with an expletive, as shown by Duarte (1997):

(53)   a. *Isso tem dois anos*. [That was two years ago.]

         b. *Isso é o tipo de coisa que me irrita*. [That is the kind of thing that irritates me.]

         c. [*Se um adolescente tem um ataque*]i *isso*i é coisa de adolescente. [If an adolescent has a fit, that is an adolescent thing.]

         d. [*Que o PMDB fez muito mal em tomar essa posição*]i *isso*i é evidente. [That the PMDB was very wrong to take that position that is evident.]

What can be seen in (53d), for example, can be said merely to reflect what is being proposed here as regards the structure of Brazilian Portuguese, still with the null subject:

(54)   a. É evidente [DP *isso*i [CP *que o PMDB fez muito mal em tomar essa posição*]] [It is evident that that the PMDB was very wrong to take that position]

         b. [IP *isso*i é evidente [DP t$_i$ [CP *que o PMDB fez muito mal em tomar essa posição*]]]

         c. [CP *que o PMDB fez muito mal em tomar essa posição*] [IP *isso*i é evidente [DP t$_i$ t$_{CP}$]]

It is thus possible that the predicate (or associated predicate) of the expletive rise or remain in place, depending on what is marked as the sentential focus.

Infinitive subject clauses?

The last issue to be addressed here is the case of so-called infinitive subject clauses. Given that the infinitive has been analysed, in traditional grammar, as being nominal in nature, one first hypothesis would be to suppose that at least infinitive subject clauses exist. Proceeding to the tests presented above, using the examples from Quícoli (pp 45-6), one has:

(55)   a. É uma loucura irmos a Santos hoje. [It is crazy for us to go to Santos today.]

         b. *Irmos a Santos hoje é uma loucura*. [For us to go to Santos today is crazy.]

         c. *Fabiana acha que é uma loucura irmos a Santos hoje*. [Fabiana thinks that it is crazy for us to go to Santos today.]

         d. *Fabiana acha que irmos a Santos hoje é uma loucura*. [Fabiana thinks that for us to go to Santos today is crazy.]

Sentence (55d) can be asterisked here, but the authors' intuition and that of other Brazilian Portuguese speakers is that the sentence is perfectly grammatical. It can thus be supposed that **irmos a Santos hoje** [for us to go to Santos today] is not in the A' position but rather in the subject position. Consider now the extraction test.

(56)   a. É uma loucura irmos a Santos com quem? [It is crazy for us to go to Santos with whom?]

b. *Com quem*i é uma loucura irmos a Santos hoje ti? [With whom is it crazy for us to go to Santos today?]

c. *Irmos a Santos hoje com quem é uma loucura?* [For us to go to Santos with whom is it crazy?]

d. *Com quem*i *irmos a Santos hoje* ti é uma loucura? [With whom for us to go to Santos today is it crazy?]

Although more marked than (56b), which is as expected, the sentence (56d) is good here. In view of these facts, one is obliged to acknowledge that infinitives can be subjects in Brazilian Portuguese. However, what can also be said is that their inherently nominal nature equips them for that function. In a classic analysis of the infinitive, Raposo (1987) shows the following contrast and parallel:

(57)   a. *O rapaz receia* [*chumbar o exame*]. [The boy fears he will fail the test.]

b. *O receio de* [*chumbar o exame*]. [The fear of failing the test.]

c. *O rapaz está receoso de* [*chumbar o exame*]. [The boy is afraid of failing the test.]

These examples show that the infinitive clause needs case. In (57a), it can receive the accusative, but in (57b) and (57c), as noun and adjective do not assign case, the preposition **de** is inserted to allow the infinitive clause. Nunes (1996) showed that, in old English, the infinitive occurred without the preposition **to**, which appeared also for reasons of case. In current terms, it must be said that what requires case is a DP, given that an NP is merely a predicate. What would be D in the case of infinitive clauses? It will be proposed here that, in Portuguese, it is the nominal affix *–r* of the infinitive form, because it needs case, as shown by Raposo.

(58)   a. [$_{DP}$ -r$_i$ [$_{XP}$ chumba- o exame]$_i$][23]

b. *O rapaz receia [$_{DP}$ -r$_i$ [$_{XP}$ chumba- o exame]$_i$]*

c. O rapaz receia [DP chumba-ri [XP tV o exame]i]

To return to the cases of infinitive subject clauses, note that, unlike the complement clause, infinitive subjects can be inflected, leading one to believe that infinitive subject clauses are always personal. The form without inflection in (59b) is still personal, reflecting the third person singular inflection.

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23 The category XP is used as projection of the verb root, because X can be realised as N or as V, as in Chomsky (1970).

(59)　　a. *Irmos a Santos é uma loucura*. [Our going to Santos is crazy.]

　　　　b. *Ir a Santos é uma loucura*. [Going to Santos is crazy.]

　　　　c. *A gente/você ir a Santos é uma loucura*. [Our/your going to Santos is crazy.]

If the infinitive is personal, then the lexical subject receives the nominative case from the agreement inflection of the infinitive. However, the infinitive sentence itself requires case, which is assigned with the infinitive in pre-verbal position. The movement is thus within the computational operations of checking. What then of the infinitive clause in place as in (55a)? The only solution that can be suggested here is that, if the infinitive clause were marked as + F (Focus), then its phonetic materiality remains in place, because it is there that the primary stress falls. For checking of the nominative, all that rises are the formal features sufficient to satisfy the EPP[24].

Final remarks

To conclude this article, it can be said that syntactic theory has been developing towards restricting representations, by way of principles that postulate possible structures and only those that are possible. In addition, it provides instruments for determining whether whatever representations proposed are correct or not. For example, there is nothing to prevent one from saying that the subordinate clause of **parecer** is adjoined to the right of the VP. Even without the radical formulation of Kayne (1994), which does not admit adjunctions to the right, the extraction test says categorically that the subordinate clause is a complement.

The observation that the integral clauses in (37) and (38) are subjective is structurally inappropriate, but interpretatively correct, because the relationship between the expletive pronoun and the sentence is of an equational predication in which the references are established as being equal. This is the concept of "expletive associate", which has been the subject of so many competing analyses in Generative Theory. The proposal advanced here constitutes a new alternative, which the authors consider simpler and more economic, because it reduces the case of insertion of the expletive to the most banal case of raising.

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24 It is admitted though that both DP and CP can have primary stress in the pre-sentential A' position, but in that case, neither the resumptive pronoun nor the expletive isso can materialise. Often the focalisation in sentence-initial position is contrastive in character and the study of that type of construction will be left to future work.

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