THE STATUS OF DE IN ROMANCE INDEFINITES, PARTITIVES AND PSEUDOPARTITIVES*

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Abstract. This paper focuses on the status of de in Romance indefinites, partitives and pseudopartitives. It argues that there is neither a ‘partitive article’ nor a ‘partitive preposition’ in syntax. De in Romance indefinites is the overt Spell-Out of an abstract operator de that cancels the definiteness of articles and is responsible for indefiniteness. De in Romance partitives is the overt Spell-Out of a RELATOR head that takes a definite DP as complement and a QP in the specifier position. Finally, pseudopartitivity is shown to have crosslinguistic parallels with indefinites, and it is derived by postulating a mono-projectival analysis in which a semilexical N selects for a de-phrase, in exactly the same way that quantifiers and cardinals select for indefinite de-phrases.

1. Introduction

Some Romance languages express indefiniteness by means of a so-called partitive article, that in the following examples takes the form des in French (1a) and dei in Italian (1b).

(1) a. Kim a mangé des pommes cet après-midi. [F]
   ‘Kim has eaten des apples this afternoon.’
   (Ihsane 2008:155, ex. (81a))
   b. Ho visto (dei) ragazzi. [I]
   ‘I saw boys.’
   (adapted from Cardinaletti & Giusti 2016:58, ex. (1a))

In French the use of the so-called partitive article, whose origins go back to a partitive genitive case and a coexisting partitive prepositional construction in Latin (see Section 2), is compulsory for indefinite NPs containing plural count nouns and mass nouns, whereas in Italian the use of the partitive article is almost never obligatory, although it shows dialectal variation. In other Romance languages, such as Brazilian...

*We acknowledge the financial support from Spanish Ministerio de Economía, Industria y Competitividad, grants FFI2017-82547-P and PID2020-112801GB-100, Generalitat de Catalunya, grant 2017SGR634, and ICREA Academia 2015 for the first author, and from The National Council for Scientific and Technological Development (CNPq), Grant 304.574/2017-1 for the second author. We thank the audience of the Around Partitive Articles Workshop (Frankfurt 2019), two anonymous reviewers of Studia Linguistica as well as the editors of this special volume for their comments, which helped us to improve the paper. All errors that remain are our responsibility.

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Portuguese (BP), Catalan (C), and Spanish (S), the partitive article was never a possibility (Carlier & Lamiroy 2014, Gerards & Stark 2021) and these languages show instead bare plurals (2).

(2) a. Recrutaram meninos. [BP]
recruited boys
b. Han reclutat nens. [C]
have recruited boys
c. Han reclutado niños. [S]
have recruited boys
‘They recruited boys.’

At a first glance, the term partitive article, exemplified in (1), seems to be a preposition + article complex (preposizione articolata, Chierchia 1998) with a mysterious indefinite meaning. Accordingly, des has been analyzed as the contraction of de plus a definite article les for French, and dei as the combination of de plus a definite article i for Italian, which emerged by a grammaticalization process from an original partitive construction in Latin (Carlier et al. 2013, a.o.).

The use of the term partitive article for the highlighted constructions in (1) leads to a problematic situation, since, as noticed by several authors (Milner 1978; Storto 2003; Ihsane 2008; Martí-Girbau 2010; Cardinaletti & Giusti 2016, 2017; a.o.), there are syntactic and semantic differences between those indefinites in (1) and partitive constructions, as illustrated in (3).

(3) a. J’ ai recu beaucoup de mes voisins et de [F]
I.have entertained many of my neighbours and of
mes amis.
my friends
‘I entertained many of my neighbours and of my Friends.’
(Ihsane 2008:131, ex. (18a))
b. Ho visto alcuni dei ragazzi. [I]
have seen some of.the.pl boys
‘I saw some of the boys.’
(Cardinaletti & Giusti 2016:58, ex. (1b))

An additional complication related to the use of the term partitive, is the fact that some constructions which have been analyzed as exhibiting a considerable variety of properties have all been designated as ‘partitive’
constructions. Chierchia (1998), for example, distinguishes between two types of structures, which he calls full partitives as in (4) and bare partitives as in (5). The most obvious syntactic difference among them is that in the latter, there is no ‘quantifier determiner’ before the de. Semantically speaking, the main difference is that in the former a part-whole relationship is explicitly entailed between the subset denoted by the quantifier and the superset denoted by the complement of de, whereas in (5) a partitive implicature can only be pragmatically inferred but is not determined by the syntactic structure.

(4) a. Alcune delle bottiglie sono rotte. 
   ‘Some of the bottles are broken.’
   b. Molto del vino si è rovesciato. 
   ‘Much of the wine got spilled.’
   c. La maggior parte del paese è a favore. 
   ‘Most of the country is in favor.’
   (Chierchia 1998:73, exs. (1d, e, f))

(5) a. Delle bottiglie sono rotte. 
   ‘Some bottles are broken.’
   b. Del vino si è rovesciato. 
   ‘Some wine got spilled.’
   c. *Del paese è a favore. 
   ‘Most of the country is in favor.’
   (Chierchia 1998:73, exs. (2))

Notice also that whereas Chierchia’s full partitives admit plural count nouns, mass nouns and, very exceptionally, singular count nouns as complements of de; Chierchia’s so-called bare partitives — the partitive article construction — do not allow singular count nouns. We will argue that the examples in (5) do not illustrate partivity but indefiniteness.

1 For additional discussion on the complications and perhaps terminological confusion related to the traditional use of the term partitive, see Koptjeskaja-Tamm (2001). See also Falco and Zamparelli (2019) for a distinction between a number of different facets of partivity: canonical partitives, indefinite partitives, proportional partitives, the semi partitive amongst construction, superlative partitives, double noun partitives, bare partitives, covert partitives, extraposed partitives, inverted partitives, maximal pronominal partitives, the out of partitive construction, and pseudopartitives. In what follows we will focus on a subset of these constructions: canonical partitives and indefinite partitives will be discussed in relation to the expression of partitivity, and on the other hand bare partitives and pseudopartitives in relation to the expression of indefiniteness.
Therefore, we will not adopt Chierchia’s terminology in this paper, and, along with the literature, we consider examples in (4) as partitive constructions. By contrast, we reserve the term bare partitives to Treviño’s (2010) specific bare partitives of the form illustrated in (6) for Mexican Spanish. These examples convey a part-whole meaning in spite of the fact that no overt quantifier expression precedes de.

(6) a. No hemos conseguido de esos cactos miniatura en [MxS] not have.1PL gotten of those cactus miniature in ninguna parte. any place
   ‘We have not gotten [any] of those miniature cactuses anywhere.’
   b. Te traje del chocolate que te gusta. to.you brought.1sg of.the chocolate that to.you like.3sg
   ‘I brought you [some] of the chocolate that you like.’
   c. Se me antojaron de los caramelos de canela. cl to.me crave.3pl of the sweets of cinnamon
   ‘I craved for [some] of the cinnamon candies.’

Finally, nominal expressions such as those illustrated in (7), known as pseudopartitives, have been discussed in relation to the literature on partitivity (Jackendoff 1977, Selkirk 1977, Corver 1998, Alexiadou et al. 2007, Stavrou 2003, Stickney 2007, a.o.). However, pseudopartitives differ from partitives in that the former correspond to “expressions referring to an amount/quantity of some (indefinite) substance rather than to a part/subset of a (definite) superset, as is the case for proper partitives” (Rutkowsky 2007:337).

(7) a. un verre d’eau
   ‘a glass of water’
   b. una bottiglia di vino
   ‘a bottle of wine’

Notice, furthermore, that in pseudopartitives the lexical item preceding de is not a quantifier determiner but a measure/classifier noun, and the complement of de is not a definite but an indefinite expression. In fact, that is one of the main properties that has been claimed to distinguish ‘true partitives’ (8a)–(9a) from ‘pseudopartitives’ (8b)–(9b).

2 The first element in pseudopartitive constructions consists of (Koptjevskaja-Tamm 2001): (i) conventionalized measures: a liter of milk, a kilo of apples; (ii) abstract quantity nouns: a large amount of apples; (iii) containers: a cup of tea, a pail of apples; (iv) fractions/parts: a slice of bread, a quarter of an hour, a large section of students; (v) quantums (for mass nouns): a lump of sugar, a drop of milk; (vi) collections (for count nouns): a group of students, a herd of sheep; and (vii) forms (both for mass and count nouns): a pile of sand/bricks, a bouquet of roses.
What is common to all the examples given so far is the use of an overt lexical item *de* (except for the bare plurals in (2)). What is different is the status assigned to *de* in the literature: *de* has been considered an article in (1) or a preposition/functioning element (3)–(9). In this paper, (i) we argue that *de* is not an article nor a preposition encoding partitivity in (1), but the overt realization of an abstract operator DE responsible for indefiniteness (see also Cardinaletti & Giusti 2016, 2018; Espinal & Cyrino forthcoming); (ii) we also argue that this hypothesis should be extended to bare indefinites in (2), to Chierchia’s bare partitives in (5), and to pseudopartitives in (7), (8b) and (9b). Additionally, (iii) we support the hypothesis that *de* is not a partitive preposition in full (canonical) partitives (3), (4), and in (specific) bare partitives, as exemplified in (6), (8a) and (9a) —in these sentences *de* is the overt realization of a bi-relational partitive relator head (den Dikken 2006; Zamparelli 1998, 2008) that takes a quantifier phrase in the specifier position and a definite (or specific) DP in complement position, thus projecting a relator phrase that behaves like a generalized quantifier.

This paper is organized in the following way. In Section 2 we summarize the diachronic literature on the partitive article, the partitive genitive, and the grammaticalization of *de* from Latin to Romance, in order to provide an overview of its development and set the stage for our proposal for contemporary Romance languages. In Section 3 we provide an analysis of *de* in indefinites and hypothesize that indefiniteness is derived by adjoining an abstract operator that shifts a definite reading into an indefinite one and turns an entity into a property-type expression. We show that *de* can be overtly (1) or covertly (2) instantiated at the time of vocabulary insertion (e.g., *des/de* in F, *dei/di* in I, and bare plurals in BP, C and S). In Section 4 we provide an analysis of *de* in partitives, and we hypothesize that ‘partitive’ *de* is in Romance the (ever) overt expression (i.e., it is a placeholder) of a functional head that mediates the relationship between a predicate (denoting the whole/superset) and its
subject (denoting the part/subset). In Section 5 we turn to *de* in pseudopartitives and argue that not only they differ from partitives but also show parallels with indefinites. Section 6 concludes the paper.

2. On the origins of *de*

In this Section, we present an overview of the literature on the development of *de* from Latin to Romance. This is an important step in our argumentation since it will be shown that *de* has followed different paths in the diachrony of Romance. Being one of the possible prepositions to express partitivity, *de* also underwent a semantic change, which led to an indefiniteness meaning in languages such as F and I. In some other languages, such as BP, C and S, the indefiniteness related to an overt *de* is reduced to the complement position of some weak quantifiers (e.g., *S un poco de* lit. a little of) and collective nouns (e.g., *S una manada de* ‘a herd of’).

Carlier (2007), Carlier et al. (2013) and Carlier and Lamiroy (2014) report that in Classical Latin the partitive genitive case was used for adnominal complements to indicate the definite or indefinite whole from which a part was isolated.

(10) magna copia frumenti.  
great.NOM.F.SG abundance.NOM.SG.F corn.GEN.SG.N  
‘great supplies of corn’ (Civ. 1, 52, 4).  
(Carlier & Lamiroy 2014:478, ex. (3)–(4))

Next to the partitive genitive case, a partitive construction introduced by means of the prepositions *de*, *ex* and *ab* also coexisted in Latin. Interestingly, these prepositions select for ablative case, not genitive, a fact that correlates with a structural distinction: while partitive genitives are mostly nominal complements (see (10)), ablatives are also used as verbal adjuncts (see (11) and (12)).

(11) Nulla de virtutibus tuis plurimis.  
none.NOM.F.SG of virtue.ABL.PL(F) possess.2SG.ABL.PL very-numerous.ABL.PL  
‘None of your very numerous qualities.’ (Cic. Pro Q. Ligario, 37)  
(Carlier & Lamiroy 2014:478, ex. (5)–(6)).

(12) Majoresque cadunt altis de montibus umbrae.  
greater.NOM.PL.and fall.PRS.3PL high.ABL.PL from mountains.ABL.PL shadow.NOM.PL  
‘And the greater shadows fall from the lofty mountains.’ (Virgil, Eclogue (1,84))  
(Carlier et al. 2013:152, ex. (5))
Originally, the three prepositions *de/ex/ab* had distinct meanings: *ex* ‘out of’, *de* ‘coming from (an origin)’ and *ab* ‘away from’. This distinction was progressively lost, and in Late Latin the three items appeared to be in free alternation, at least in some contexts (Carlier 2007:43, footnote 31).

If we now focus on the evolution of *de* from Latin to Romance, two different changes took place in the course of time. First, this preposition was exposed to a process of *semantic bleaching*: from a primitive meaning that described a downward movement with respect to a landmark, to the loss of the feature of verticality by which *de* became a general marker of a movement away from a landmark (i.e., spatial meaning denoting a distancing from a source or an origin, as in the expression *de digito anulum detraho* ‘I remove the ring from the finger’ Cato *R.R.* 157,6; Carlier 2007:2). From Late Latin to Romance *de* still continued a pervasive semantic change. Thus, in Old French *de* could express a partitive meaning by which an unspecified amount was taken from a contextually specified partition set (e.g., *Il boit del vin* lit. he drinks of the wine ‘He is drinking some of the wine’). However, in Middle French the partition set introduced by *de* was not necessarily explicit in the context, thus evolving into the expression of indefiniteness: an unspecified amount taken from an unspecified quantity not identifiable by the addressee, as illustrated in (13).

(13) Quant le faulcon a *des* pouez, . . .
     when the falcon has *des* lice
     ‘When the falcon has lice, . . .’ (French translation of Albert le Grand, *De Falconibus*, BNF, ms. fr. 25342, 15th C.)
     (Carlier & Lamiroy 2014:496, ex. (30))

It seems that it was at this stage, in Middle French, that the partitive became a full-fledged article: in contrast to the definite article *le(s)* ‘the’,

3 Carlier et al. (2013) point out as an argument in support of the claim that the distinction between the three prepositions is blurred the fact that *ex* and *ab* can co-occur in the same sentence. Consider (i).

(i) *Ex eo loco abesse.*
    out.of that.ABL place.ABL be.absent.INF
    ‘To be absent from that location.’ (Caesar, *De bello Gallico*, 5,21,2)
    (Carlier et al. 2013:163, ex. (47))

4 As noted by a reviewer, this construction reminds us of Treviño’s (2010) (specific) bare partitives. Standard Modern F has *Il boit du vin* lit. he drinks of the wine, which is ambiguous between a partitive reading ‘He is drinking some of the wine’ and an indefinite reading ‘He is drinking wine’. As pointed out in the text, the partition interpretation is contextually dependent. See Carlier (2007) and Ihsane (2008). Contemporary BP still shows the use of *de* restricted to verbs of consumption (‘drink’, ‘eat’), as in (i). This construction probably originated from the extended use of Latin ablative *de*. According to Carlier and Lamiroy (2014) and Schurr (2021), this use was a first step in the diachronic development of the partitive article, which was not concluded in some Romance languages.

(i) A Maria quis comer *do* bolo e *beber* *do* vinho. [BP]
    the M. wanted eat of the cake and drink of the wine
    ‘Maria wanted to eat some of the cake and drink some of the wine.’
the so-called partitive was used to express indefiniteness and, in contrast to *un* 'a, one', *de* was used to express non-singular.\(^5,6\) As will be discussed in Section 3 lack of definiteness and non-singular are the two formal properties on which we build our analysis of indefinite *de*.

A second set of changes that affected the evolution of *de* is the following. From Latin to Romance *de* went through a pervasive syntactic decategorization (Carlier et al. 2013) too: from a preposition that was capable of case marking and introducing adjuncts, it changed into a purely functional item. In support of this reanalysis Carlier and Lamiroy (2014) claim that in Late Latin and Old French *de* evolves from a two-sided relator (that is, a full preposition which mediates between an external element and a governed NP) towards a one-sided one. In other words, in the new use, *de* has no specifier but it still behaves as a P with respect to the DP it governs. Furthermore, *de* introduces the direct object of the verb. Example (14a) shows that *de* in Old French was used preceding the pronominal object of a transitive verb, while example (14b) shows that in Modern French *de* introduces less individuated objects.

(14) a. Seignors, du vin *de* quoi il burent avez oï.
   lords about the wine *de* which they drank have listened
   ‘Lords, your heard about the wine of which they drank.’
   (Béroul, *Tristan & Iseut*, v. 2133–2134)
   (Carlier & Lamiroy 2014:485, ex. (16))
   b. Il boit *du* vin.
   he drinks *du* wine
   ‘He is drinking wine.’

Similarly, whereas in Old Spanish *de* co-occurred with transitive verbs introducing an object (15a), in Modern Spanish the partitive article did not develop into a full-fledged article (15b). Notice that the formal distinction has a meaning correlate: *del agua* in (15a) has a partitive reading, but *agua* in (15b) is to be associated with an indefinite reading.\(^7\)

(15) a. cogió del agua en él e a sus primas dio.
   took *del* water in it and to his cousins gave
   ‘(He) took some water [into his hat] and gave it to his cousins.’
   (*Poema del Mío Cid*, Anónimo, c.1140)

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\(^5\) In Romance indefinite singular nominals are preceded by a dedicated determiner/quantifier: *un(o)/um* ‘a’ (from the Latin numeral *UNUS*).

\(^6\) Notice that this approach to the partitive article should be correlated with the parametric change that took place between Old French and Modern French, namely the disappearance of bare nouns and the introduction of articles that were the locus of agreement. See Mathieu (2009).

\(^7\) See Carlier and Lamiroy (2014) for parallel data from Old and Modern Italian. The latter language differs from Modern French and Modern Spanish in that, although it also developed a so-called partitive article *del/dei*, like French, this is not obligatory.
b. Ana cogió agua con las manos.
Ana took water with her hands
‘Ana took water with her hands.’

Following this diachronic reanalysis de later lost the prepositional status. This change has been usually interpreted as showing a categorial change from P to D, for example when de is the internal argument of a presentative (16a) or when it occurs after a P (16b).

(16) a. De sains moines i a de sa contree.

*de* saint monks there has of his region
‘There were saint monks from his land.’ (French translation of Albertus Magnus, *De falconibus*, BNF ms. Fr. 1304, 16th C)
b. et le lendemain le fault tresbien oindre avecques du savon.
du soap
‘And the following day you have to rub him very well with soap.’
(French translation of Albertus Magnus, *De falconibus*, BNF ms. Fr. 1304, 16th C)
(Carlier & Lamiroy 2014:487, part of exs. (18a) and (18b)

The hypothesis we will present and argue for in the next section is that, from a synchronic perspective *de* in indefinite expressions is not an article and is not partitive.

3. *De* in indefinites

As illustrated in (17) Romance languages have a set of expressions (*des/du/de la* phrases in F; *dei/delle/del* in I; bare plurals and bare mass nouns in BP, C, S, and I) that are interpreted as non-partitive indefinites (Storto 2003), in spite of the overt *de* that shows up in certain structures. These expressions may occur in a variety of positions, as shown in the examples below. See further examples in (1), (2) and (5) above.

(17) a. Kim a mangé *des pommes* / *du pain* cet après-midi. [F]

Kim has eaten *des* apples *du* bread this afternoon
‘Kim ate {apples, bread} this afternoon.’
(Ihsane 2008:155, ex. (81a))
b. Recrutaram *meninos / gente.* [BP]
recruited boys people
‘They recruited {boys, people}.
c. *Delle bottiglie* sono rotte. [I]
delle bottles are broken
‘Some bottles are broken.’
(Chierchia 1998:73, exs. (2a))
Note that (17a) and (17b) show indefinite expressions in postverbal (object) position. Interestingly, indefinite plural count nouns and indefinite mass nouns are also allowed — with restrictions — in subject position, as illustrated in (17c).\(^8\) Bare plurals are allowed in preverbal position in a language like S, but only when they are topicalized, as shown in (18).\(^9\)

(18) a. **Obispos** asistieron varios.
    bishops attended several
    ‘(As for) bishops, several attended.’
    (Laca 2013:96, ex. (3b))

b. **Dinero** puedo darte, si lo necesitas.
    money can give you if it need
    ‘(As for) money, I can give you some, if you need it.’

In turn, Catalan requires that the fronted indefinite expression be accompanied by *de*. This is illustrated in the clitic left-dislocation examples in (19). Notice that in these examples the *de*-phrase is the antecedent of the clitic pronoun *en*.\(^{10}\)

(19) a. **De llibres**, te’n puc donar només un / et puc *de* books you.en can give only one / you can
donar només aquest.
give only this
    ‘Books, I can only give you one / I can only give you this one.’

b. **D’aigua**, en vaig beure quan vaig arribar al cim.
    de.water en PAST drink when PAST arrive at.the top
    ‘Water, I drank when I reached the top (of the mountain).’


\(^9\) As noted by Laca (2013), examples with topicalized bare plurals in pre-sentential position illustrate an (unexpected) indefinite reading, since as it is well-known from the literature (Suñer 1982), bare plurals are usually impossible in preverbal position in S, as shown in (i).

(i) *Niños* jugaban en la calle.
    children play.pst.3pl in the street
    ‘Children were playing in the street’
    (Leonetti 2013:122, ex. (2))

\(^{10}\) It is usually taken for granted in the linguistic literature on C, F and I (Martí-Girbau 2010, Milner 1978, Cordin 1988) that the clitic *en/ne (< INDE*) that replaces the complement construed by *de* is a partitive clitic. Given its primitive meaning of spatial movement away from a starting point (i.e., ‘from there’) is absent in the modern varieties of these languages, we assume that *en/ne* differs from definite accusative clitics in that, while the latter are entity-type denoting expressions, the former are property-type denoting expressions. See Espinal and McNally (2007, 2011) for this semantic proposal.
De in indefinites, partitives and pseudopartitives

Left-dislocated indefinite de/di phrases also show up in F and I (20). The latter language, however, also has the possibility of a bare plural, since di is optional. Note that in C, F and I (examples (19) and (20)) the use of the clitic en/ne guarantees an indefinite antecedent.

(20) a. Des pommes, j’en ai mangé beaucoup. [F]
    des apples I.en have eaten many
    ‘Apples, I ate many.’

b. (Di) ragazzi Gianni ne ha visti. [I]
    de boys Gianni ne has seen
    ‘Boys, Gianni saw some.’
    (Cardinaletti & Giusti 2016:78, ex. (84b))

The properties mentioned above apply in these languages no matter whether the complement of de is a plural count noun or a mass noun. Concerning mass nouns and indefinite plural count nouns it is also interesting to highlight a microvariation pointed out by Cardinaletti and Giusti (2018) in Italo-Romance varieties. These authors propose an indefinite operator (which can be realized as “uninflected di”) occurring in the specifier position of DP, and a head D (which can be realized as an overt article) specified for the gender and number features of the nominal projection. They observe that the following expressions can all be associated with an indefinite reading: bare mass and bare plural in (21a), di + bare mass and bare plural in (21b), and definite article + mass and plural count noun in (21c) (the latter being ambiguous between a definite and an indefinite reading).

(21) a. Ho raccolto fieno. / Ho raccolto violette. [Italo-Romance]
    have harvested hay have picked violets
    ‘I harvested hay. / I picked up violets.’

11 We acknowledge the existence of sentence initial indefinite des/dei-phrases in both F and I that have a quantificational or a referential reading (Dobrovie-Sorin & Beyssade 2012, Cardinaletti & Giusti 2016). Note that in the following examples des élèves and dei ragazzi are interpreted as escaping the scope of negation.

(i) Des élèves ne m’ont pas rendu leurs devoirs. [F]
    des students NEG me.have not returned their assignments
    ‘Some students didn’t hand in their assignments.’
    (Dobrovie-Sorin and Beyssade (2012:72, ex. (97b))

(ii) Dei ragazzi non mi hanno lasciato entrare. [I]
    dei boys not me have let enter
    ‘Some boys didn’t let me in.’

12 Besides these authors, an extensive literature has appeared that propose different structures for indefinite constructions. These are: (i) the Q°-analysis of de (Kupferman 1979, Storto 2003, Roodeburg 2004, Zribi-Hertz 2006), (ii) the P-to-D-raising analysis of de (Chierchia 1998, Zamparelli 2008), and (iii) a Div° merging-analysis of de (Stark 2016, Gerards & Stark 2021). These proposals all question a (canonical) P-status of de. For lack of space, we are not going to explore the differences found among these competing analyses.
b. Sei fyse d’aqua. / Anda sarkà d violatte.  
if there was di water go look for di violets  
‘If there was water... / Look for violets.’

c. Ho raccolto il fieno. / Ho raccolto le violette.  
have harvested the hay have picked the violets  
‘I harvested hay. / I picked up violets.’

(Cardinaletti & Giusti 2018; exs. (3b), (5a, b), (4b)).

According to the authors’ proposal, (21a) has a covert $d + $a covert head $D$ (i.e., an article), (21b) has an overt $d + $a covert head $D$ (i.e., a covert article), and (21c), a covert $d + $an overt head $D$ (i.e., an overt definite article). However, what is more interesting for our purposes is to note that all these expressions are (or can be, in the case of (21c)) interpreted as conveying indefiniteness.

Notice that all the data presented above are unexpected under the view that $de$ is a partitive preposition combined with a definite article. First, as for ‘partitive’, notice that these examples might be associated with a pragmatic implicature of partitivity that could be cancelled, but they are structurally distinct from canonical/full partitives (exemplified in (3)), where $de$ relates a QP with a DP.

Second, the status of the so-called ‘preposition’ of $de$ has sometimes been challenged (Miller 1992, Pomino 2019; see also the references in footnote 12). Notice that, unlike typical (lexical) prepositions which introduce adjuncts, in the above examples $de$ introduces arguments of verbal predicates.

In generative theory, semantically empty prepositions as $de$ are heads responsible for structural Case marking. However, we would like to point out that the $de$ in a sentence as (22a) cannot be a preposition introduced for Case requirements, because the verb $manger$ is the head responsible for the structural accusative case of the object $pommes$, as

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13 Cardinaletti and Giusti (2016:65) also point out that indefinite $dei$ does not contain a preposition and thus is different from the preposizione articolata, assuming that in the latter there is the incorporation of the article $i$ into a $[P \ de]$.  
14 Structural Case was first introduced by Rouveret and Vergnaud (1980:132) as a Case Filter (i), which states that every structurally and phonetically realized NP must be Case marked:

(i) Case Filter: $*NP$, unless
   a. $NP$ is governed by Tense  
   b. $NP$ is governed by -WH or +WH  
   c. $NP$ is governed by A nondistinct from $[-N]$, where A [i.e., items of category V or P] dominates lexical material
seen by the parallel (22b). The only difference between the (22a) and (22b) is the (in)definiteness of the verb complement.  

(22) a. Pierre a mangé des pommes.  
Pierre has eaten des apples  
‘Pierre ate apples.’  

b. Pierre a mangé les pommes.  
Pierre has eaten the apples  
‘Pierre ate the apples.’  

Consider now (23), a sentence with an unaccusative verb, whose postverbal subject is assumed to bear partitive inherent case (Belletti 1988). Since the occurrence of *de* is optional, we cannot conclude that it is a marker of Case, and *de* cannot be considered a marker of partitive case either.

(23) Sono arrivati (dei) ragazzi.  
are arrived dei boys  
‘Boys have arrived.’

Romanian, a language in which Case can also be morphological, shows a relevant semantic distinction related to the presence of *de* vs. the presence of a morphological genitive case marking preceding bare nouns: *de*-phrases can only be interpreted as indefinites denoting non-specificity, whereas nominal phrases marked with morphological genitive case refer to specific entities. Consider the following contrast:

(24) a. haine de preoți / preot  
clothes de priests / priest  
‘clothes of priests/priesthood’

b. hainele preoților / preotului  
clothes priests,GEN.PL / priest,GEN.SG  
‘clothes of the priests/priest’

In (24a), the only possible interpretation is that we are talking about clothes that are adequate for priests/priesthood. Interestingly, even the singular bare noun can be interpreted in the same way. By contrast, in

15 The same is true for indefinites in subject position as (i), whose case is nominative, on a par with (ib):

(i) a. Delle bottiglie sono rotte.  
delle bottles are broken  
‘Some bottles are broken.’

(Chierchia 1998:73, ex. (2a))

b. Le bottiglie sono rotte.  
the bottles are broken  
‘The bottles are broken.’

16 We thank Monica-Alexandrina Irimia (p.c.) for this information and for providing us with the examples in (24) and their corresponding judgements.
(24b) the nominal in genitive case refers to the priest(s) that have been previously introduced into the discourse. An indefinite non-specific interpretation of ‘priest/priests’ is impossible in this example. Romanian thus shows that de occurring with bare nouns is responsible for conveying indefiniteness, and its presence is not related to Case marking.17

17 Interestingly, there is an extensive literature (Longobardi 2001, Delfitto et al. 2009, Delfitto & Paradisi 2009a, b, Silvestri 2012, Massaro 2019, a. o.) demonstrating that the common assumption that the genitive case marking found in Latin was systematically replaced by prepositional case assignment in Romance cannot be maintained. There are several prepositionless genitive nominal constructions in old varieties of Romance, Italian dialects, modern standard Italian, Rio Platense Spanish (among other languages, see Silvestri 2012), often referred to as Juxtaposition Genitives, which combine common nouns without the need of an overt de. See some examples in (i)–(v).

(i) a. la niece le duc
   the niece the duke
   ‘the niece of the duke’
   [Old French]
   b. puis le tens Paris de Troie
   since the time Paris de Troie
   ‘since the time of Paris of Troy’
   (Delfitto and Paradisi 2009a:59, exs. (18b, g))

(ii) a. reghatura lengname
    transportation wood
    ‘transportation of wood’
    [Tuscany, 14th century]
    b. aburattatura farina
    selection flour
    ‘selection of flour’

(iii) a. la bbotta lu stɔmmɔkə
    the blow the stomach
    ‘the blow to the stomach’ (a state of shock and perturbation)
    [Apulian]
    b. lu skavamenta la muntappa
    the digging the mountain
    ‘the digging of the mountain’
    (Massaro 2019:236, exs. (7a, b),)

(iv) a. elaborazione dati
    processing data
    ‘data processing’
    [modern Italian]
    b. transporto merci
    transportation goods
    ‘goods transportation’
    (Delfitto and Paradisi 2009a:53, exs. (1))

(v) porque la costumbre acá la gente . . . fue, he
    because the habit here the people was, have
    visto las vidrieras
    seen the Shopwindows . . .
    ‘because the habit of the people was, I have seen the shopwindows, . . .
    (Silvestri 2012:90), ex. (11b))

There are several analyses for how Case is assigned in these constructions; it has been proposed that it is either assigned by an empty Kase position (Simonenko 2010), or by checking definiteness features by movement (Delfitto & Paradisi 2009a, b; Delfitto et al. 2009). The latter approach relates to the debate about whether the two nouns/DPs must agree on definiteness. Since these topics and phenomena are not the focus of our paper, we leave them for further studies.
In order to account for these data, we propose that, syntactically, *de* is neither a partitive preposition, nor an article. However, we postulate that *de* keeps an article flavor by being the overt Spell-Out of an abstract operator adjoined to D. Our hypothesis is that *de* is the overt expression of an abstract operator DE that is responsible for cancelling definiteness in Romance (see also Espinal & Cyrino forthcoming). In other words, on the basis of the systematic variation in the expression of indefiniteness we saw above (i.e., the absence or presence of a marker *de* before a definite article, a plural count noun or a mass noun), we propose (25):

(25) The indefinite reading associated with plural count nouns and mass nouns in Romance is composed by merging an abstract operator DE to a D structure.

Before developing our proposal, and in order to show that it is well-grounded, we first present some necessary background assumptions. First, we assume that a nominal expression in Romance needs a DP structure in order to be a syntactic and a semantic argument (Longobardi 1994, Chierchia 1998, Dobrovie-Sorin et al. 2006, Ghomeshi et al. 2009, Dobrovie-Sorin & Beyssade 2012, a.o.). An overt D (more exactly its semantic counterpart, the iota operator; Partee 1987) turns property-type expressions (the denotation of bare common nouns) into entity-type expressions (the denotation of definite descriptions). Second, bearing in mind Heim’s (2011) assumption that nominals in languages without articles are basically indefinites, having a wider range of uses because they do not compete with (the inexistent) definites, we assume that argument DPs in languages with articles (among them Romance) are by default definite.18 Third, we assume (following Cyrino & Espinal 2020, after previous work by Delfitto & Schrote 1991, Bouchard 2002, Dobrovie-Sorin 2012, a.o.), that within the Romance nominal domain, plural marking is a modifying feature syntactically adjoined to D as represented in (26).19

(26) [D [iPLURALIZER:PL] [D D]]

18 It is well-known that Latin was an articleless language, and Romance languages developed definite articles (and, later, indefinite determiners such as *un*) (Mathieu 2009). Therefore, we assume that, at some point in the diachronic development, when the use of bare nominals was not the default option, it became necessary to mark indefinite nominals in order to differentiate them from definite ones. This was carried out differently in Romance singular (*un*) and plural indefinites (F *de/des/due/de la; S bare plurals). We postulate below that *de* is the overt output of an operator that conveys indefiniteness, and, as such, it is present either overtly or covertly in all Romance indefinites.

19 This proposal is based on puzzling data on plural marking in a variety of Romance languages (i.e., lack of plural agreement and partial plural marking; plural marking on pronouns, clitics and possessives; plural marking on relatives; etc.). Cyrino and Espinal (2020) propose that the PLURALIZER is a modifying formal feature on definite count nouns, and that instantiations of plural marking within the nominal domain should be conceived as the output of morphophonological concord, a post-syntactic operation that is sensitive to c-command.
Finally, we assume (following Milner 1978; Storto 2003; Ihsane 2008; Martí-Girbau 2010; Cardinaletti & Giusti 2016, 2017; a.o.) a distinction between indefinite vs. partitive de phrases, in spite of the fact that etymologically both uses (the indefinite one and the partitive one) derive from the Latin preposition de.

With these assumptions in mind, our analysis of indefinite expressions with plural bare nouns postulates an abstract operator DE adjoined to a pluralized definite D, as represented in the structure in (27). 20

(27)

\[ D \]

\[ DE \]

\[ [\text{iPLURALIZER:PL}] \]

\[ D \]

In structure (27) the lower D (i.e., the category corresponding to the definite article) is modified twice: first, it is pluralized, by being merged with [iPLURALIZER:PL]; second, it is modified by the operator DE. According to the present analysis, DE is an operator that cancels the effects of the iota operator associated with the definite article \( (\text{DE}: \forall x[P(x)] \rightarrow P(x)) \). Thus, parallel to Ident (Partee 1987), DE shifts an entity \( \langle e \rangle \) into a property \( \langle e, t \rangle \) (i.e., semantic type \( \langle e, t \rangle \)).

In the case of indefinite mass nouns, we assume the structure in (28).

(28)

\[ D \]

\[ DE \]

\[ D \]

20 See Giusti (2002, 2015) who analyzes the definite article as a dummy constituent that hosts the functional features of gender and number associated with N. See also Cardinaletti and Giusti (2016), who also assume that bare plurals (and dei-expressions) in Italian must be DPs. Additionally, Cardinaletti and Giusti (2018) propose the existence of an overt/covert indefiniteness operator in Spec,DP, while the head D is specified for the gender and number features of the nominal projection. For them, both positions may be overt or covert. Our analysis differs from theirs in that we propose that the covert/overt operator DE is a head adjoined to a head D, not a specifier, since it can never take a phrasal form. The advantage of our proposal over theirs is that it allows for adjunctions of other heads and operators in a hierarchical manner, thus contributing to the compositional meaning of indefiniteness, specificity and anti-specificity. In that respect, see Espinal and Cyrino (forthcoming).
Mass nouns in argument position are assumed to be the complement of a null definite D modified by the operator DE. Thus, crucially in (28) D is modified only once, since number does not play a role.

The syntactic structures in (27) and (28) account for the various indefinite nominal expressions seen above. The operator DE can be overtly instantiated or not, and de (or its variants di/di) must be considered a phonological exponent of this operator. However, at the time of Allomorph Selection (i.e., Vocabulary Insertion) Romance languages have available other possibilities: zero insertion, as in the case of bare plurals and bare mass nouns in BP, C and S; and the phonological pieces des/du/de la in F, dei/delle/del in I.21

Our proposal can also account for the variation among Italian dialects exemplified in (21), since we assume that an overt or covert de can be the surface manifestation of the operator DE. Sentences with plural count nouns will have the structure in (29) whereas those with mass nouns have the structure in (30). In both structures several terminal nodes are associated with one exponent, of several possible morphophonological ones, at Spell-Out.

21 A reviewer asks if we have a stance on why overtness of this operator is mandatory in some Romance languages (F), optional in others (I), and mostly unavailable in yet a third group of Romance languages (S, C and BP). We hypothesize that the presence or absence of competing forms in a language is associated with a division of labor at the time of expressing differences in meaning: F de phrases necessarily convey narrow scope under negation, while des phrases cannot do so in canonical contexts (Dobrovie-Sorin 2021); likewise S bare plurals necessarily convey narrow scope under negation (Dobrovie-Sorin & Laca 1996, 2003), whereas unos cannot do so in canonical contexts (Martí 2008, 2009); I bare plurals license narrow scope, while dei phrases allow wide scope. Overall, the lack of bare nominals in F forced that de/des do the work of conveying narrow/wide scope distinctions. The presence of bare plurals in S and I forced that unos/dei can be associated with wide scope. See also Cardinaletti and Giusti (2018) and Giusti (2021).
This analysis is innovative in that, differently from what has been presented in the literature, we defend that *de* is not an article (contra Carlier 2007, a.o.) and is not partitive (contra Chierchia 1998, Zamparelli 2008). In what follows we present some additional arguments in support of our analysis.

First, note that if *de* were an article, (31a) should be grammatical because articles can precede cardinals, as illustrated in (31b).

(31) a. *Dei dieci ragazzi* sono arrivati.  

\[ \text{*ten boys are arrived} \]  

(Cardinaletti & Giusti (2016:74, ex. (65a))

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b. Sono arrivati i dieci ragazzi.
are arrived the ten boys
‘The ten boys arrived.’

Cardinaletti and Giusti (2016), consider that *de* is an uninflected determiner and they explain the ungrammaticality of (31a) by claiming that “the indefinite quantity interpretation of *dei* is semantically incompatible with cardinality” (Cardinaletti & Giusti 2016:74). In our analysis, this explanation is not necessary since cardinals higher than one, as well as all indefinite quantifiers, select for indefinite plural phrases, which in our analysis are *de*-phrases with the structure in (27). This prediction is borne out when we consider left-dislocated examples with cardinals remaining in situ, as illustrated in (32).22

(32) a. Des biscuits, Jean n’a mangé cinq.
*des* biscuits Jean *en*.has eaten five
b. *(Di) biscotti, Gianni ne a mangiati cinque.
*di* biscuits Gianni *ne* has eaten five
c. De galetes en Joan n’ha menjat cinc.
*de* biscuits D Joan *en*.has eaten five
‘Biscuits, Gianni ate five.’

Therefore, the numeral cannot be merged lower than *de*, and (31a) cannot be generated by the grammar.

Second, if *de* were a so-called ‘partitive’ article, it should introduce a presupposition of existence (Storto 2003). Notice that standard partitives, which select a definite DP complement, are disallowed in existential constructions as (33a), exactly like definite DPs (33b), whereas bare plural indefinites are allowed (33c).23 This means that partitivity is not involved in the overt *de* of the indefinite grammatical F example in (33d).

(33) a. *Tras el atentado, hubo algunas de las secuelas* [S]
after the attack had some of the sequel
(entre las víctimas).
among the victims

22 Interestingly, in Romanian, *de* necessarily occurs with cardinals above twenty (Tănase-Dogaru & Ușurelu 2015:252, ex. (28)). Consider (ib), which the authors consider a ‘quirky pseudopartitive’.

(i) a. două fete
two.F girls.F
‘two girls’
b. douăzeci de fete
twenty *de* girls
‘twenty girls’

23 See Martí (2009) for the incompatibility of partitives in existential constructions in S.
b. *Tras el atentado, hubo las secuelas (entre las víctimas).
   after the attack had the sequels among the victims

c. Tras el atentado, hubo secuelas (entre las víctimas).
   ‘After the attack, there were sequels among the victims.’

d. Après l’attaque, il y a eu des séquelles  [F]
   ‘After the attack, there were sequels among the victims.’

To sum up, in this section we have argued that *de* in indefinites is not a partitive article as has been termed in the literature and is not a Case marker, but it is the overt expression of an abstract *de* operator, adjoined to a definite (pluralized) *D*, that cancels the effects of the iota operator introduced by the definite article. This abstract operator can be instantiated either by *de* or Ø and is not a marker of partitivity. *De* is a marker of indefiniteness, which accounts for the meaning of *des* and *dei* phrases in (1), bare plurals in (2) and Chierchia’s bare partitives in (5) in Section 1.

4. *De* in partitives

As seen in the introduction to this paper, *de* is also present in so-called canonical and full partitive constructions, which we exemplify in (34).

(34) a. Ho visto alcuni dei ragazzi.  [I]
   I have seen some of the boys
   (Cardinaletti & Giusti 2016:58, ex. (1b))

b. Pedro falou com dois dos representantes sociais.  [BP]
   Pedro spoke with two of the representatives
   ‘Pedro talked to two of the social representatives.’

c. Mucha de la gente confiaba no infectarse.  [S]
   much of the people trusted not get infected
   ‘A lot of the people hoped not to get infected.’

c. Certains de vos amis ont besoin de votre aide.  [F]
   some of your friends have need of your help
   ‘Some of your friend need your help.’

Canonical partitives convey a relationship between a subset, which is introduced by an indefinite quantifier (e.g., *alcuni, dois, mucha, certains*) and a larger set or superset of individuals, which is introduced by a definite DP (e.g., *i ragazzi, os representantes sociais, la gente, vos amis*). According to Barker (1998:680), standard partitivity is characterized by the fact that “partitive nominal expressions have in their extension only proper subparts of the entity denoted by the NP object of the partitive of” (Barker
In von Heusinger’s (2011:1052) terms, partitives are discourse anchored by their superset. On the other hand, Jackendoff (1972) postulated the Partitive Constraint: the complement in a partitive must be definite. This is also the main characteristic of Chierchia’s (1998) full partitives, which admit definite plural, mass and singular count nouns in complement position of de. Recall the examples in (4), here repeated as (35) for convenience.25

(35) a. Alcune delle bottiglie sono rotte. [I] some of the bottles are broken ‘Some of the bottles are broken.’
   b. Molto del vino si è rovesciato. much of the wine CL is spilled ‘Much of the wine got spilled.’
   c. La maggior parte del paese è a favore. the most part of the country is in favour ‘Most of the country is in favor.’
   (Chierchia 1998:73, exs. (1d, e, f))

The expression denoting the subset is commonly characterized as having a null N (Giusti 1991; Cardinaletti & Giusti 2006, 2017; Falco & Zamparelli 2019). The requirement of a null noun in standard partitives has been envisaged as a “non-distinctness requirement”, postulated in the literature between the noun expressing the part and the noun expressing the whole (see Milner 1978 for F). This constraint is a reflect of the necessity that the outer nominal refers to a proper subpart of the referent of the inner nominal: a <subset, superset> relationship (Falco & Zamparelli 2019), or that the nominal complement inside the QP and the one inside the DP must match in features or be in a conceptual relationship (e.g., hyponymy or symmetric hyponymy). However, it is easy to find examples that show that any of these nouns can be either overt or covert, and that even both nouns can be overtly expressed.26 See

24 See also Ladusaw (1982) and Hoeksema (1984). Note that in this paper we only focus on standard partitivity, but not on possessive partitives (a friend of John’s).
25 Singular count nouns are admissible in this structure only if they can be conceived as being cumulative or as having multiple parts, which distinguishes discurso from palabra (i). See Roberts (2005).
(i) La mayor parte del discurso/de la palabra es un plagio. [S] the major part of the discourse of the word is a plagiarism ‘Most of the discourse/word is a plagiarism.’

The complement of a standard partitive can also be indefinite but specific in context, and it can be part of a contextually salient group: two of some students that I know, one of several deputies who arrived late (Ladusaw 1982, Reed 1991, de Hoop 1992, Abbott 1996, Barker 1998). By contrast, the complement of the partitive structure cannot be a strong quantifier (Milsark 1974): *one of both boys arrived (Falco and Zamparelli 2019). For our current purposes we will just assume that the complement of a standard partitive must be a DP. For a recent review of the partitive constraint, see Keizer (2017).

26 See also Barker (1998) (e.g., a friend of John’s friends).
(36) and (37) (see also Falco & Zamparelli 2019), where it is assumed that weak quantifiers select de-phrases.

(36) a. algunos [de nens] dels [nens] que han trucat a [C]
    some de children of.the.pl that have called at
    the door

    [nens] [nens] que han trucat a [C] la porta.
    some of.the.pl children that have called at
    the door

b. alguns [de nens] dels [nens] que han trucat a la
    some of.the.pl children that have called at the
    porta.
    door

‘Some children of the children that called at the door...’

(37) a. He leído tres [de copias] de los [libros] que me [S]
    have read three copies of the.pl books that me
    have recommended.

    has recommended

    ‘I’ve read three copies of the books I’ve been recommended.’

b. He revisado ciertos [de ejemplares] de los [volúmenes]
    have checked some copies of the.pl volumes
    that me mandaste.

    ‘I have reviewed certain copies of the volumes that you sent me.’

In the case of so-called specific bare partitives the whole QP denoting the subset that is part of a whole set can be null, as made explicit in Treviño’s examples in (6), repeated here as (38).

(38) a. No hemos conseguido de esos cactos miniatura [MxS]
    not have.1pl gotten of those cactus miniature
    en ninguna parte.
    in any place

    ‘We have not gotten [any] of those miniature cactus anywhere.’

b. Te traje del chocolate que te gusta.
    to.you brought.1sg of.the chocolate that to.you like.3sg

    ‘I brought you [some] of the chocolate that you like.’

c. Se me antojaron de los caramelos de canela.
    CL to.me crave.3pl of the sweets of cinnamon

    ‘I craved for [some] of the cinnamon candies.’

The constituent relating the QP and the definite DP has been commonly postulated to be a partitive preposition, in Romance the preposition de. However, in this paper we postulate that there is no ‘partitive preposition’ in syntax in Romance, as we argue immediately.

First, if de in partitives were a preposition, it would be predicted that extraction out of it should not be possible. A reviewer points out that de in ‘true’ partitives expressing a part-whole relation indeed behaves
differently from de in indefinite nominals with regard to extraction of PPs, and he/she attributes this contrast to his/her assumption that de in real partitives behaves like a true preposition. Consider (39): indefinite nominals allow for PP-extraction (39a), whereas real partitives block it (39b–c).

(39) a. C’est de nos poules que nous mangeons souvent des œufs.
   lit. ‘It is of our chickens that we often eat eggs.’
   (Carlier 2007:20, ex. (39b))

b. *C’est de Marie que j’ai mangé de la tarte.
   it.is of Marie that I.have eaten of the cake
   (Carlier 2007:20, ex.(38b))

c. *C’est de Zola que j’ai lu deux des livres.
   it.is of Zola that I.have read two of the books
   (Milner 1978:71)

In the literature, this contrast has been linked to the fact that indefinite phrases, as (39a), and partitive phrases, as (39b–c), have different structures (see Cardinaletti & Giusti 2006:30–32) and de has a different status in each case. However, we must add that (39b–c) are ruled out for independent reasons. In other words, we relate the differences in the extraction possibilities not to the ‘preposition’ status of de in true partitives, but to the fact that de Marie and de Zola are extracted out of a definite DP (la tarte de Marie, les livres de Zola), whereas de nos poules is extracted out of an indefinite de-phrase (des œufs). Definite DPs behave like islands, whereas indefinite phrases (in which a de operator is postulated to be adjoined to a D head) do not.

Second, if de in partitives were a preposition and de in indefinites were also a preposition, coordination should be possible between them. However, as Ihsane (2008) points out, pure indefinites cannot be coordinated with partitives, in spite of the fact that they apparently all contain a ‘preposition’ de in F. This is illustrated in (40) (from Ihsane 2008:131, exs. (18a, b), (19)): example (40a) (repeated from (3a)) illustrates a coordination of partitives, (40b) a coordination of indefinites, and (40c), which is ungrammatical, a coordination of a full partitive with an indefinite.

(40) a. J’ai reçu beaucoup de mes voisins et de [F]
       I.have received many of my neighbours and of
       mes amis.
       my friends
       ‘I have entertained many of my neighbours and of my friends.’
b. J'ai reçu beaucoup de voisins et d'amis.
   I have received many de neighbours and de friends
   ‘I have entertained many neighbours and friends.’

The ungrammaticality of (40c) begs the question of what is structurally different between the indefinite expressions that express partitivity and the expressions that are pure indefinites, both headed by de. In order to address this question we start from the observation that in canonical partitives the so-called ‘partitive preposition’ — instantiated by de — relates two nominal expressions: the complement (which denotes the largest pluralities of N in the domain), most commonly a definite DP, and a specifier (which denotes a proper subset of this set), always a QP (Barker 1998).

A natural hypothesis for this bi-relational function would be to postulate that de in canonical partitives projects a PP, with a specifier (the QP) and a complement (the DP). However, if de were a preposition, it would project a PP (mainly associated with a modifying type ⟨⟨e,t⟩⟩) that is not expected to be available in argument positions. On the other hand, the literature has advanced an analysis of standard partitives that postulate a D/Q with a null nominal head followed by a complement PP introduced by the preposition de, whose complement is a definite DP (Chierchia 1998; Zamparelli 1998, 2008). 27

(41) a. [DP three [NP N° [PP of the boys ]]] 28
b. [DP three [PP [NP boys ]; [P of [DP those [NP boys ]]; ]]]
c. [DP alcuni [NumP [RP [NP ragazzi ] [R de [DP i[ NP ragazzi ]]]]]] 29

With some variations these three structures have in common that they share a high cardinal or quantifier, a null N and a PP containing a definite DP. However, notice that there is no consensus on the status of the PP: a uniaxial complement of N in (41a) or a biargumental PP/RP whose specifier is a bare NP in (41b,c).

The partitive PP has also been taken as an optional argument. Consider the data in (42a,b) (Cardinaletti & Giusti 2016:66, exs. (34b,c)).

27 See Falco and Zamparelli (2019) for a review. See Martí-Girbau (2010) for an analysis of partitives à la Kayne (1994) according to which de is a Case marker that heads a KP and selects an abstract FP the specifier of which is a DP and the complement a QP, posterior movements to functional projections higher than KP give the final word order.

28 N° = empty Noun head.

29 According to Zamparelli (2008) di/of is an operator Re’ (which stands for ‘residue’), postulated as the head of a RP required in the structure of partitives, but also in the structure of kind/sort-type constructions (e.g., two kinds of tigers) and the English double genitive construction (e.g., a friend of John’s).
(42) a. Ho visto alcuni ragazzi.
   [I]
   have seen some boys
   ‘I saw some boys.’

b. Ho visto alcuni dei ragazzi.
   Have seen some of the boys
   ‘I saw some of the boys.’

According to Cardinaletti and Giusti indefinite quantifiers like *alcuni* select two arguments: an obligatory indefinite DP, as in (42a), and an optional PP, as in (42b). In Cardinaletti and Giusti’s (2006, 2016) analysis of the partitive phrase in (42b), see the structure in (43), *alcuni* is a quantifier external to the extended nominal projection selecting a DP that contains a null pronoun and an optional partitive PP argument.

(43) Ho visto [QP [Q' alcuni] [DP pro]] [PP de- [DP i [NP ragazzi]]].

(Cardinaletti & Giusti 2016:66, ex. (34c))

However, we consider that this syntactic analysis is not adequate for various reasons: (i) it suggests that all quantifiers would have optional arguments, and, therefore, they would all have a potential undesired ambiguity, depending on whether they select an indefinite complement or a PP; (ii) it suggests that *de-* should project a PP (complement of Q) with no specifier (Cardinaletti & Giusti 2016), which is unexpected for prepositions; (iii) the structure (43) suggests that the PP is not an argument of Q but a constituent adjoined to Q'; and (iv) note also that the structure in (43) raises an issue with respect to the status of the postulated *pro*, which is standardly conceived to be definite. However, as we have mentioned above, the complement of an indefinite quantifier must be an indefinite *de*-phrase, and therefore, *pro* should not be postulated for such a structure.

Given what we have said so far, we propose for canonical partitives a bi-relational structure not mediated by a P, but mediated by an abstract functional head, a RELATOR.30 We follow den Dikken (2006), who proposes that RELATORS are placeholders for functional heads that mediate the relationship between a predicate and its subject. In accordance with his proposal, the RELATOR accommodates the

30 Den Dikken (2006:29) proposes that a RELATOR can have many features, and it lexicalizes differently according to the place where it occurs as a functional element. In his words, “a particular RELATOR can certainly have a highly specific bundle of features of its own, but those features are a reflex of its syntactic environment (for instance, v has tense, f-, and Case features because it is selected by T, licenses or identifies [ . . . ] a V, and Case-checks a f-agreeing noun phrase in its complement), not the inherent baggage of a RELATOR category.” In this paper, we propose that *de* in partitives is the overt expression of a RELATOR head that has Case features, and thus it may be involved in checking/assigning Case to its complement.
complement and the specifier in its minimal domain. This idea is formulated in (44).

(44) Partitivity is derived by merging a QP in the specifier position of a bi-relational partitive RELATOR that takes a DP in complement position.

Thus, adapting den Dikken’s proposal to indefinite partitives, we postulate the structure in (45), for definite plural and definite mass nouns in DP position.

(45)

\[ \text{RP} \]
\[ \text{QP} \]
\[ \text{R} \]
\[ \text{RELATOR} \]
\[ \text{DP} \]

Notice that in this structure the head of QP neither necessarily selects a null noun, nor a PP complement/adjunct that necessarily lacks a specifier, because in this structure no PP is postulated. RP is a functional projection that relates a QP with a DP, and as such RP may occur in argument position. Semantically, the RELATOR is a function that takes an entity of type \( \langle \mathbf{e} \rangle \) (the denotation of the DP) and gives as output another function \( R \) that turns generalized quantifiers of type \( \langle \langle \mathbf{e}, \mathbf{t} \rangle \rangle_{\mathbf{t}} \) (the denotation of QP) into another generalized quantifier also of type \( \langle \langle \mathbf{e}, \mathbf{t} \rangle \rangle_{\mathbf{t}} \) (the denotation of the top RP). This means that in this analysis

\[ \text{RP} = \text{Re}' (\langle \langle \text{Spec,RP} \rangle \rangle, \langle \langle \text{Complement,RP} \rangle \rangle) \]

Crucially different from this proposal we claim that only QPs containing indefinite DE-phrases, but not pure indefinite DE-phrases may occur in Spec,RP of standard partitives. Only DPs that refer to maximal sums of individuals or maximal sums of portions, but not kind-denoting DPs may occur in Complement,RP. Note that, according to this analysis, the definite DP complement is interpreted extensionally, as referring to the maximal set of individuals having the property denoted by the noun. The DP cannot be conceived as an intensional kind entity that abstracts away from its instantiations, as shown by the fact that this definite DP can even contain a numeral.

(iii) alcuni dei dieci ragazzi
some of the ten boys
(Zamparelli 2008:311, ex. (28a))

In this sense, we align ourselves with Storto (2003) and Cardinaletti and Giusti (2016) in claiming that the DP complement of standard partitives does not have an abstract kind denotation. In so doing we depart from Chierchia (1998) and Zamparelli (2008).
the RELATOR is not meaningless, since it introduces a function between different denotation types (i.e., it is of type $\langle\langle\langle e,t\rangle\rangle,\langle\langle e,t\rangle\rangle\rangle$).\textsuperscript{32}

The specifier is a QP that denotes a proper subset of the set denoted by the definite plural DP, and it may either denote quantificational specificity (e.g., S ciertos hombres), non-specificity (e.g., S varios hombres) or anti-specificity (e.g., S algunos hombres) (Espinal & Cyrino forthcoming). In standard partitives, the complement is a definite DP that denotes a group individual (e.g., S uno de los dos planetas) or the maximal set of all the pluralities conceived in association with a definite plural (e.g., BP dois dos representates sociais); the complement can also be a mass noun (e.g., I molto del vino) or a count noun that has cumulative reference similar to a mass noun (e.g., I la maggior parte del paese). The RELATOR is spelled-out as de, and can be instantiated as dei (I), des (F), dos (BP), dels (C), de los (S) at the time of Vocabulary Insertion.

To sum up, in this section we have argued that de in partitives is not to be considered a partitive preposition head that projects a PP, but the Spell-Out of an abstract bi-relational functional head, a RELATOR, that projects an RP that can occur in argument position. The specifier of this RP is a QP, and the complement hosts a definite DP. The RELATOR head, instantiated by de at the time of Vocabulary Insertion in all the Romance languages we have considered, mediates between a proper subpart and a whole.

5. De in pseudopartitives

In the previous sections we have proposed that de in indefinites is not an article, it is not a case assigner, and it is not partitive: it is the overt realization of an abstract DE operator. For partitive constructions, we have proposed that de is not a preposition, but the overt expression of an abstract bi-relational functional head, a RELATOR. We have defended that both DE-phrases and RP, since they are not PP, occur in argument position.

There is an additional Romance structure introduced by de that we will now turn to: the pseudopartitive. The literature has repeatedly made the point that partitives are semantically and syntactically different from pseudopartitives in English (see Jackendoff 1977, Selkirk 1977, Alexiadou et al. 2007, a.o.).\textsuperscript{33} However, to our knowledge no one (after the initial parallel observed by Jackendoff and Selkirk between pseudopartitives and simple quantifier expressions many objections) has put forward a formal syntactic analysis that accounts for the similarities observed in

\textsuperscript{32} See Chierchia (1998), who postulates that the partitive de marker is meaningless.

\textsuperscript{33} For an extensive review of the literature on pseudopartitives, see the Wiley Blackwell Companion to Syntax chapters by Mihaela Tănase-Dogaru (Tănase-Dogaru 2017) and by Anikó Csírmaz and Melita Stavrou (Csírmaz & Stavrou 2017).
Romance between pseudopartitives preceded by *de* (46a) and indefinites selected by quantifiers and cardinals (46b,c). Compare these examples with the left-dislocated variants at the righthand side.

(46) a. Tinc un grapat d’objeccions. \(\Rightarrow\) D’objeccions, en tinc [C] have a handful *de* objections *de* objections CL have un grapat.
    a. handful
b. Tinc unes quantes objeccions. \(\Rightarrow\) D’objeccions, en tinc have a.PL many objections *de* objections CL have unes quantes.
    a.PL many
c. Tinc cinc objeccions. \(\Rightarrow\) D’objeccions, en tinc cinc. have five objections *de* objections CL have five

In this section we propose a new analysis of *de* in pseudopartitives. We argue that *de* is neither a preposition nor a Case assigner, but the instantiation of the covert abstract operator DE we have already proposed for indefinites (Section 3).

Below, based on the arguments presented for English, we focus on the differences between partitives and pseudopartitives for Romance languages. On the one hand, the literature has pointed to differences related to meaning:

i partitives relate parts to wholes (47a), pseudopartitives introduce different ways of measuring entities or substances (47b).

(47) a. **um pedaço** daquele pão. [partitive] a piece of that bread
   ‘a piece of that bread’

b. **um pedaço/ kilo/ pouco** de pão. [pseudopartitive] a piece kilo little *de* bread
   ‘a {piece, kilo, little} of bread / some bread’

ii the complement of a partitive denotes a specific, maximal set/amount (48a), whereas the complement of a pseudopartitive denotes a non-specific set/amount (48b).

(48) a. algumas garrafas daquele vinho [partitive] some bottles of that wine
   ‘some bottles of that wine’

b. algumas garrafas de **vinho** [pseudopartitive] some bottles *de* wine
   ‘some bottles of wine’

34 For simplicity the examples that follow all come from BP. Note that for coherence with the previous sections *de* in partitives is translated as ‘of’, whereas *de* in pseudopartitives is translated as ‘de’.

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iii pseudopartitives, but not partitives, allow a distinction between a quantity and a container reading (Selkirk 1977). Notice that the salience of any of these two readings is dependent on the verb that selects for the pseudopartitive in argument position.

(49) a. Eu comi um pote de geléia. [quantity reading]
    I ate a jar de jam
    ‘I ate a jar of jam.’

b. Eu quebrei um pote de geléia. [container reading]
    I broke a jar de jam
    ‘I broke a jar of jam.’

Additionally, some syntactic differences have been explored for English (Selkirk 1977, Alexiadou et al. 2007, a.o.). In Romance, the relevant ones are:

i As seen above, complements of de in partitives are overt definite DPs (50a), which differentiate them from pseudopartitives (50b), which have the form of bare nominals (either bare plurals or bare mass nouns).

(50) a. uma pilha dos livros [partitive]
    a pile of the books
    ‘a pile of the books’

b. uma pilha de livros [pseudopartitive]
    a pile de livros
    ‘a pile of books’

ii Regarding the possibility of movement out of the DP, only partitives, but not pseudopartitives, allow extraction (51) and extraposition (52).

(51) a. Dessas flores, o Pedro comprou um buquê. [partitive]
    of these flowers the Pedro bought a bouquet
    ‘Of these flowers, Pedro bought a bouquet.’

b. *De flores, o Pedro comprou um [pseudopartitive]
    de flowers the Pedro bought a bouquet

35 Differences related to the possibility of preposition stranding, for example, are not relevant since there is no such phenomenon in Romance.
36 The contrast in (51) does not seem to apply so strongly in C, a fact that we relate with the need of the clitic en after all left dislocated phrases introduced by de.

(i) a. D’aquestes flors, el Pere n’ha comprat un ram. [C]
    of these flowers the Pere en has bought a bouquet
    ‘Of these flowers, Pere bought a bouquet.’

b. *De flors, el Pere n’ha comprat un ram.
    de flowers the Pere en has bought a bouquet

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(52) a. O Pedro comprou um buquê ontem [partitive]
    the Pedro bought a bouquet yesterday
    dessas flores.
    of these flowers

b. *O Pedro comprou um buquê ontem [pseudopartitive]
    the Pedro bought a bouquet yesterday
    de flores.
    de flowers

iii partitives are considered opaque to adjectival modification. Hence,
adojectives can enter into a modification relation with the second
noun only in a pseudopartitive (53b), but not in a partitive (53a),
with the intended meaning ‘the coffee is tasteless’.

(53) a. #uma insípida xícara daquele café [partitive]
    a tasteless cup of that coffee
    ‘a tasteless cup of that coffee’

b. uma insípida xícara de café [pseudopartitive]
    a tasteless cup de coffee
    ‘a tasteless cup of coffee’

These differences ultimately underly the proposal for two distinct
structures regarding these constructions (Jackendoff 1977, Selkirk 1977,
Corver 1998, Alexiadou et al. 2007, a.o.). While the structure for
partitives has been argued to be bi-projectional, containing two DPs (the
former with a quantificational determiner), the structure for pseudopart-
titives has been proposed to consist of a single DP projection (usually,
but not necessarily, headed by an indefinite determiner) containing two
NPs, the former of which is a classifying or measure noun (Alexiadou et
al. 2007).

Interestingly, there is another notable syntactic difference that shows
up when we look at pseudopartitives and partitives outside Romance.
In some languages there is no linking element between the two
nominals (N1 and N2, henceforth) in pseudopartitives. Instead, N1 and
N2 appear in juxtaposition (54a)–(55a) in pseudopartitives, whereas
partitives necessarily have a ‘linking’ item between them, such as Greek *me* in (54b) and German *von* in (55b).37

(54) a. mia kouta vivlia
    a box books
    ‘a box of books’

b. mia kouta *me* ta vivlia
    a box with the books
    ‘a box of the books’

(Rutkowsky 2007:339, exs. (8))

(55) a. eine Dose Kekse
    a box cookies
    ‘a box of cookies’

b. eine Dose *von* diesen leckeren Kekse
    a box of those delicious cookies
    ‘a box of those delicious cookies’

(Rutkowsky 2007:339, ex. (7))

Incidentally, in Latin pseudopartitives also consisted of the juxtaposition of nouns, where N2 was marked for genitive case (56a) exactly like genitive partitives (56b).

(56) a. mica panis
    crumb bread.Gen
    ‘breadcrumbs’

(Tănase-Dogaru and Ușurelu 2015:251, ex. (24b))

37 As pointed out by Stavrou (2003) and Alexiadou and Stavrou (in press) the two juxtaposed nominals share the case assigned by an external assigner to the whole nominal expression, thus supporting the conclusion that pseudopartitives do not have internal Case assigners. In Greek there is always agreement in Case between N1 and N2, even in the absence of gender and number agreement. We thank E. Tsiakmakis (p.c.) for example (i a).

(i) a. *Tis prosfere ena buketo iakinthus*.
    her.DAT offered.3SG a.SG.ACC bunch.SG.ACC hyacinths.PL.ACC
    ‘She was offered a bunch of hyacinths.’

b. *Aghorasa djo buketa iakinthus*.
    bought-1SG two.ACC bunches.NEUT.ACC hyacinths.MASC.ACC
    ‘I bought two bunches of hyacinths.’

(Alexiadou and Stavrou 2020:719, ex. (13a))

Interestingly, as pointed out by a reviewer, in German partitives can also consist of two juxtaposed nouns, the second one being marked for morphological genitive case (ii). Likewise, pseudopartitives in this language can, in informal registers, contain a linking element *an* lit. ‘on’ (iii).

(ii) zwei der.Gen Männer.Gen
    two the men
    ‘two of the men’

(iii) zwei Liter an Getränken
    two liter on beverages
    ‘two litters of beverages’
b. multum operae. [partitive]
much.N.SG work.GEN.F.SG
‘A lot of the work’
(Cic., Brutus, 89, LXXXIX, 304)

Also interesting is the situation in Modern Romanian. Pseudopartitives are distinguishable from partitives because each construction has a distinct linking element. Pseudopartitives must have a de linking N1 and N2 (57a), whereas partitives use the prepositions din ‘of.in’ (57b) (and also dintre ‘of.among’, see Dobrovie-Sorin & Giurgea 2013, Tănase-Dogaru & Ușurelu 2015, a.o.).

(57) a. zece grame de / *din brînză [pseudopartitive]
ten gram.FEM.PL de cheese.FEM.SG
(de capră)
(of goat)
‘ten grams of (goat) cheese’

b. zece grame din / *de această brînză [partitive]
ten gram.FEM.PL of this.F.SG cheese.F.SG
(de capră)
(of goat)
‘ten grams of this (goat) cheese’
(Brasoveanu 2008:139, exs. (2) and (3))

In addition, Modern Romanian pseudopartitives show topicalization, which leads to the disappearance of de, as illustrated in (58).

(58) Ceai, a băut toată lumea câte o ceașcă (*de).
tea has drunk all world DISTR a cup de
‘Tea, everybody drank a cup.’
(Tănase-Dogaru and Ușurelu 2015:11, ex. (32))

All of these contrasts provide an interesting basis for our analysis. We begin by looking at the constituents of a pseudopartitive expression. Several authors (Riemsdijk 1998, Stavrou 2003, Borer 2005, a. o.) have pointed out the special properties of N1. Alexiadou and Stavrou (2020), following Stavrou (2003) and Csirmaz and Stavrou (2017), propose that pseudopartitives most characteristically consist of a semi-lexical N that requires the presence of a lexical N2, which it measures or quantizes. The semi-lexical head can consist of measure nouns, classifier-like nouns, massifiers, group and cardinal nouns as in (59) (Alexiadou & Stavrou 2020:724, (23)).

38 Due to lack of space, we will not explore the differences that these semi-lexical nouns may raise. In this paper, we will refer to the contents of N1 as commonly denoting a measure. See also footnote 2.
(59) classifier nouns (*swarm*), cardinal nouns (*dozen*), quantifier nouns (*number*), measure/unit nouns (*kilo*), partitive nouns (*part*), container nouns (*glass*), group (collective) nouns (*team*), consistive nouns (*bunch*)

Additionally, several authors have explored the syntactic structure underlying pseudopartitives. Selkirk (1977) proposes a different syntactic structure for the quantity and the container readings. Furthermore, Selkirk (1977:313, (106) and (107)) proposes that *of* in pseudopartitives is a ‘grammatical formative’, acting as a linking element and having no other function, whereas in noun-complement structures it is the head of a PP.\(^{39}\)

(60) a. a bunch of flowers
   b. [NP [N' [NP a bunch] of [N' flowers]]] [quantity reading]
   c. [NP a [N' [N' bunch [PP of [NP flowers]]]]] [container reading]

Beyond this ambiguity of pseudopartitives, two main types of syntactic analysis are advanced in the literature: they are the so-called mono-projectional and the predicational analysis. The former, first proposed by Jackendoff (1977), Selkirk (1977), Löbel (1989) (see also Stavrou 2003, Csirmaz & Stavrou 2017, Alexiadou & Stavrou 2020), focuses on the existence of lexical categories (*water*) dominated by semi-lexical categories (*bottle*), which are in turn dominated by a cardinal, an indefinite determiner or a quantifier (*a*). It advocates that the structure of pseudopartitives consists of one NP/DP projection, that contains a lexical N. The labels attributed to the relevant categories differ among the authors, but what is crucial is that the quantity-designating element heads either an NP or a functional projection within the extended nominal projection. Notice also that there is no label (61a) or place (61b) for the formative *of*.

(61) a. a bottle of water
   a. [N'' [N'' [N'' a bottle] of [N' [N water]]]]
      (Selkirk 1977; adapted by Jackendoff 1977)
   b. [DP a [QP [Q' bottle [NP water]]]]
      (Löbel 1989; adapted by Corver 1998)

\(^{39}\) Selkirk (1977:308) adduces as evidence the fact that *of* can be absent in some pseudopartitives, as opposed to partitives, even in English, as in (i).  

(i) a. Can I borrow a couple (of) sheets of paper? [pseudopartitive]
   b. Can I borrow a couple *(of) those sheets of paper? [partitive]

Wood (2009:4, ex. (11)) also reports oral data from English, in which *of* is absent in combination with the measure nominal *couple*.

(ii) Kate, welcome to the program. I have actually a couple questions for you please.
    (Ray Suarez: NPR Talk of the Nation 1998)
The predicational analysis was first advanced by Abney (1987). The author proposed the structure in (62), in which there is a PP that, according to him, is not an argument of the preceding noun. This analysis advocates the predicative relation holding between the lexical noun and the semi-lexical noun.

(62) [DP a [NP bottle [PP of water]]]

Corver (1998) also assumes a predicational view of pseudopartitives and proposes, in the spirit of Kayne (1994), that it is the measure nominal, and not the quantified one, which acts as a predicate. He postulates that: (i) there is a predicative relation between N1 and N2, represented as the projection of a small clause (XP); and (ii) *of* is a ‘nominal copula’, the clausal counterpart of *be* (see also den Dikken 1998, 2006). His proposed structure is shown in (63). The amalgam F+Xj in (63a) represents the functional head F hosting the raised functional head X of the small clause, which is spelled-out as *of*. By contrast, the amalgam F+Xj+P in (63b), with P-incorporation, represents the container reading.  

40 Be predication for the quantity reading and have predication for the container one. In both cases the measure noun starts from a predicate position and raises to Spec,FP to satisfy the requirements of an external D.

(63) a. [DP a [FP [NP bottle] [F' [F+Xj of+∅] [XP [NP1 water] [X' [X ti] [NP2 tj]]]]]]
b. [DP a [FP [PP tk bottle] [F' [F+Xj+Pk of] [XP [NP1 water] [X' [X tj] [PP [P tk [NP2 tj]]]]]]]

(Corver 1998:223, (30); 235, (71))

In our view, one (unresolved) issue we see in these two lines of analysis relates to the question of what exactly the role of the linking element, *of* (in English), *de* in Romance, is in pseudopartitives. On one hand, we see languages that do not show any linking element between N1 and N2; on the other hand, the available analyses for that element, in the languages that have it, ascribe to it an ill-defined character: it either has no clear position/function in the structure, or it is the result of the amalgam with a distinct (predicative) category. Furthermore, various analyses appear to suggest that *of* is simply the Spell-Out of various functional categories.

Given the fact that N2 is always instantiated by indefinite plural count nouns or indefinite mass nouns, even in languages that do not show an overt linking element, we propose that Romance pseudopartitives are to be analyzed as plain indefinites (see Section 3). In accordance with this hypothesis, *de* in pseudopartitives is the overt

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40 Structure (63b) assumes, following Freeze (1992) and Kayne (1993), that *have* is the morphological Spell-Out of an incorporation of a preposition into *be*. 

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expression of the operator de. In order to argue for this proposal, we consider three aspects of de in pseudopartitives in Romance: (i) it is not necessarily overtly expressed; (ii) it cannot be considered the expression of (structural) Case; (iii) it is not a preposition, as it has been considered in some previous syntactic analyses. Interestingly, all these properties are shared by de in indefinites.

First, as we have seen above, the linking element in pseudopartitives is absent in some languages. In most Romance de seems to be required (64).

(64) a. duas garrafas *(de) vinho
   [BP]
   two bottles de wine
   ‘two bottles of wine’
   b. una capsa *(de) bombons
   [C]
   a box de chocolates
   ‘a box of chocolates’

However, that is not always the case. For example, de is phonologically null in Asturian when the preceding word ends with a vowel, as illustrated in (65) for pseudopartitives, as opposed to the required phonological exponent de in partitives (66).

(65) a. un sacu (de) patates
   a bag de potato.PL
   ‘a bag of potatoes’
   b. un montón *(de) patates
   a pile.AUGM de potato.PL
   ‘a (big) pile of potatoes’
   (San-Segundo-Cachero 2017:14, exs. (48a, b))

(66) a. un sacu *(de) les patates
   a bag of the.PL potato.PL
   ‘a bag of the potatoes’
   b. un montón *(de) les patates
   a pile.AUGM of the.PL potato.PL
   ‘a (big) pile of the potatoes’
   (San-Segundo-Cachero 2017:13, exs. (47a, b))

Recall that Alexiadou and Stavrou (2020) have convincingly shown that there is a tight relation between N1 and N2 in languages like Greek and German, in which pseudopartitives are expressed by means of juxtaposition. In these languages, N1 and N2 are always of the same type (that is, N1 is semi-lexical, and N2 is lexical), and the verb can select either one. If we consider Romance, we observe the same properties. As we can see in (67), N1 is always a semi-lexical noun that has a tight relation with N2, the lexical noun selected by N1, as shown by the fact that they are translated by compounds into English. Additionally, (67) shows that the verb can select either N1 or N2.
(67) a. Comer unas migas de pan. / Comer (unas) migas. / Comer pan. ‘to eat some breadcrumbs’
b. Caure un floc de neu. / Caure un floc. / Caure neu. ‘to fall a snowflake’

Since these are properties that tie N1 and N2 together and leave de as just a linking element, we postulate that de in pseudopartitives is not a Case assigner either. In support of this we consider again the fact that, in languages such as Greek, in which there is juxtaposition in pseudopartitives, Case is morphologically marked depending on the grammatical function of the whole argument (see footnote 37). On the other hand, we may also consider the case of Romanian, a language that indeed has a Case system, but makes no use of it in pseudopartitives. Instead, as seen above in (57) and (58), Romanian makes use of the vocabulary item de or a null string to introduce pseudopartitives. De is merely a phonological linker between N1 and N2, which must be distinguished from the so-called partitive prepositions din/dintre ‘from’. These facts are evidence, in our view, that in partitives and pseudopartitives de has a categorial status different from a preposition, exactly like we discussed in Section 3 with respect to de in indefinites.

In fact, we have additional arguments for considering that de cannot be analyzed as a preposition. Recall that in Section 4 we argued that de in partitives is not a preposition either, and we discussed two pieces of evidence: one related to extraction and the other related to coordination. When we consider pseudopartitives we consider an argument related to agreement and one related to coordination. Agreement between subject and verb may show some variation in Spanish pseudopartitives. Interestingly, however, as shown by Rodrigues (2011), there is a difference in meaning.

(68) a. Se me cayó un montón de libros. [Only container reading] [S] se me fell.sg a pile de libros. ‘A pile of books fell.’ [from the perspective of the speaker]

b. Se me cayeron un montón de libros. [Only quantity reading] se me fell.pl a pile de books ‘A pile of books fell.’ [from the perspective of the speaker] (Rodrigues 2011:96, ex. (4))

As we did above for partitives, we argue that de cannot be a preposition in pseudopartitives. If that were the case, we could not explain the
possibility of variable agreement in (68). By contrast, if pseudopartitives consist of a mono-projectional structure with two NPs, variable agreement can be easily predicted.

The second piece of evidence comes from coordination facts. We have proposed that de has a different status in partitives and pseudopartitives. If that is the case, coordination between these expressions should not be possible. This is borne out by the facts, as we can see in (69).

(69) a. *Eu comprei [uma caixa [dos libros e de cadernos]] [BP] I bought a box of the books and de notebooks

b. *[Un puñado [de dólares y de los euros]] [S] a handful de dollars and of the euros

If we try to coordinate a de-partitive phrase with a de-pseudopartitive phrase, we get an ill-formed sequence, and this means that we are dealing with two different grammatical objects.

Given these considerations, whereas de in partitives was shown not to be a preposition, but a RELATOR, as discussed in Section 4, de in Romance pseudopartitives is not a preposition either, but the overt expression of the operator DE that cancels definiteness, as postulated in Section 3. Thus, we propose the structures in (70) for Romance pseudopartitives containing bare plurals and mass nouns. In this mono-projectional structure two nouns are mediated by a D that introduces an indefinite operator. The highest n corresponds to the semi-lexical measure noun, which can be specified or be the complement of a numeral, a quantifier or some other determiner (not specified in these structures). The lowest n corresponds to the lexical noun. In both (70a, b) a DE operator modifies a definite article turning it onto an indefinite expression, thus turning an entity-type expression onto a property-type one (the denotation of bare plurals and bare mass nouns). Depending on languages and constructions, at the time of Vocabulary Insertion DE has either de as its overt exponent or a zero form.

41 Still, one might argue that (68b) shows ad sensum agreement with the collective noun montón 'pile'.

42 Note that, in contrast to (69), the following are possible:

(i) coordination of NPs:

Eu comprei uma caixa [de [livros e cadernos]].
I bought a box de books and notebooks
‘I bought a box of books and notebooks.’ (= a box containing books and notebooks)

(ii) coordination of a pseudopartitive with an indefinite phrase

Eu comprei [uma caixa [de livros]] e [cadernos] para a escola.
I bought a box de books and notebooks for the school.
‘I bought a box of books and notebooks for the school.
(= I bought one box of books and (I bought) notebooks for the school)
Notice that these structures reflect the similarity that Jackendoff (1977) and Selkirk (1977) observed between simple quantifier expressions (e.g., many flowers, much bread) and NPs headed semi-lexical nouns (e.g., a bunch of flowers, a piece of bread). In our analysis (see also Espinal & Cyrino forthcoming) both weak quantifiers (Milsark 1974) and measure nouns select for DE-phrases in Romance. These structures allow both the quantity and the container readings. We hold that this semantic difference is not syntactically driven from the structure of pseudopartitives, but is highly dependent on contextual information, primarily the
selectional restrictions of the predicates that these nominals structures are
arguments of.

To sum up, in this section —following a number of previous studies
that insist on the structural differences between partitives and pseudo-
partitives across languages— we have argued that Romance pseudopar-
titives introduce a measure noun that selects for a de-phrase, in exactly
the same way that quantifiers and cardinals select for de-phrases. This
accounts for the fact that the complement of n1 is an indefinite (non-
quantificational) nominal expression. We have argued that de is not a
case marker and is not a preposition. Therefore, we conclude that de in
pseudopartitives is not different from de in indefinites.

6. Conclusion

In this paper, after an initial overview of different types of partitive
structures, as presented in the literature, we have focused on the status of
de in Romance indefinites, partitives and pseudopartitives.

A review of the evolution of de from Latin to Romance supported the
conclusion that from an original spatial preposition that selected for
ablative case, Romance de emerged as the output of a process of semantic
bleaching and syntactic decategorization. This evolution converges in the
conclusion that de in Romance is a purely functional element.

We have argued that in these Romance structures de is either the overt
Spell-out of an abstract operator de adjoined to D (as in the case of
indefinites and pseudopartitives) or the overt Spell-out of a relator head
in the case of partitives. From the set of Romance languages examined
only Romanian requires vocabulary items different from de to be the
phonological exponents of the relator.

We have argued that de is not a Case marker in any of these structures.
The main arguments for this claim are that already in Late Latin and in
old stages of Romance languages de combines with transitive verbs
introducing non-individuated objects and precedes indefinite subjects. In
contemporary Romance de introduces indefinite objects in parallel to
bare objects, and also indefinite subjects, as well as left-dislocated
subjects and objects. Furthermore, given that (i) de is optional preceding
the subject of unaccusative verbs in Italian, that (ii) de conveys a non-
specific reading in a language specified for Case such as Romanian, and
that (iii) phrases preceded by de have a property-type denotation, exactly
like the clitic en (in Catalan, French and Italian), we conclude that de is a
marker of indefiniteness. We have further argued that in indefinite
structures de is neither a partitive article nor a partitive preposition. De is
just the Spell-out of an operator responsible for indefiniteness.

In Section 4 we have shown that de in partitives is not a preposition
either, but the head of a bi-relational functional relator phrase that has
a definite DP in complement position and a QP in specifier position. In
support of the hypothesis that *de* is not a preposition we have presented several arguments based on extraction and on coordination.

In the last section, after discussing several properties that distinguish partitives from pseudopartitives, with a special mention to Romance languages, we have argued for an analysis of pseudopartitives parallel to the one proposed for indefinites. We have proposed a mono-projectional analysis the head of which is a semilexical noun (i.e., a measure noun) whose complement contains an abstract operator *de* that modifies a definite *D* and is responsible for the indefiniteness of the complement. We have also argued that the semantic ambiguity of pseudopartitives (i.e., the quantity and the container readings) is not to be represented at syntax. Pseudopartitives are disambiguated at the time they merge in an argument position of a verbal predicate.

Overall, we conclude that there is neither a ‘partitive article’ nor a ‘partitive preposition’ in syntax. Indefinite *de* is homophonous to partitive and pseudopartitive *de*, but indefinites and pseudopartitives correspond to one structure, giving rise to indefiniteness, whereas partitives correspond to a different structure in which a part-whole relationship is headed by a bi-relational functional head responsible for partitivity.

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Received October 14, 2021
Accepted October 28, 2021

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