Partitive article and partitive pronoun in French: 
Focus on the intersection

1. INTRODUCTION

Aims:
- Clarify what is meant by ‘partitive article’ (du, de la, de l’, des ‘of the’) and ‘partitive pronoun’ (en) in French.
- Determine whether there is a mapping between ‘partitive article’ and ‘partitive pronoun’: can en replace all the constituents introduced by du/des and can it replace only constituents involving du/des?
- Focus on the structure of the constituents that contain a partitive article and that can be replaced by en, and determine the position and the function of the components of du/des.

Structure of the talk:
  2. Partitive labels
     2.1 ‘Partitive articles’
     2.2 ‘Partitive pronoun’
  3. Focus on the intersection
     3.1 Partitive du/des-NPs
     3.2 Indefinite/quantitative du/des-NPs
  4. Further issues
     4.1 What is FP<sub>de</sub>?
     4.2 Do referential des-NPs fit in the picture?

2. PARTITIVE LABELS
2.1 ‘Partitive article’: du (de+le), de la, de l’, des (de+les)

No consensus on the interpretation of constituents introduced by ‘partitive articles’: unambiguously partitive (Chierchia 1998), unambiguously indefinite (Storto 2001), ambiguous between a partitive and an indefinite reading (Milner 1978, Delfitto 1993, Cardinaletti & Giusti 2006), or three way ambiguous (Dobrovie-Sorin & Beyssade 2004, Ihsane 2008):<sup>1</sup>

a) Partitive:

(1) J’ai pris des biscuits qui étaient sur la table.
   ‘I took (some) of the biscuits that were on the table.’ I.e. part of the set of biscuits.

With a restricted class of verbs (fragmentative) like manger ‘eat’, boire ‘drink’… (Kupferman 1979, 1994, 1998): (2) vs. (3). The complement of such verbs may be ambiguous: the dont ‘of which’ relative clause represents the part-of relation (2)a, the ce que ‘this which’ relative clause the quantitative reading (2)b. Contrast with verbs like voir ‘see’ (3) (Kupferman 1979:7). This implies that the partitive reading is limited to object positions.

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<sup>1</sup> Ihsane, Forel & Kusseling (2014, to appear) show that a three-way distinction is necessary when teaching en to non-native speakers of French.
The partitive reading is rare, just like ‘bare partitives’ in English:

(4) a. Again Tarzan came down into the village and renewed his supply of arrows and ate of the offering of food which the blacks had made to appease his wrath. (From: E. Rice Burroughs, *Tarzan of the Apes*, italics ours)
   
   b. In the breast of his blouse he carried some coarse dark bread; he ate of this between whiles, and sat munching and drinking near Madame Defarge’s counter: (From: Ch. Dickens, *A Tale of two Cities*, italics ours). (Hoeksema, 1996:15-6)

b) Indefinite/quantitative: Recall (2)b and (3)b.

(5) J’ai vu des biscuits sur la table.
   ‘I saw some biscuits on the table.’

c) Referential/specific:

Des-NPs (not *du*-NPs which are mass) can be referential (Kleiber 1981b, Bosveld-de Smet 1998, Dobrovie-Sorin & Beyssade 2004, Ihsane 2008).

(6) Des amis que j’ai rencontrés hier m’ont insulté.
   of the friends whom I have met yesterday have offended me
   (Bosveld-de Smet 1998:33(67a))

☞ Most constituents introduced by a ‘partitive article’ don’t have a part-whole interpretation (Bosveld-de Smet 1998, Roodenburg 2004).

2.2 ‘Partitive pronoun’: *en*

The clitic pronoun *en* can be found in different constructions (partitive, genitive and quantitative, Milner 1978). It can also replace some *du/des*-NPs (Ihsane 2013).

a) Partitive:

(7) a. Jean a acheté trois de mes peintures.
   Jean has bought three of my paintings
   ‘Jean bought three of my paintings.’

   b. Jean *en* a acheté trois.
   Jean EN has bought three

b) Genitive:

(8) a. Jean se souvient de tous ses étudiants.
   Jean REFLECTS remembers of all his students
   ‘Jean remembers all of his students.’
b. Jean s’en souvient.
   Jean REMFL EN remembers


c) Quantitative:
(9) a. J’ai lu beaucoup / peu de livres.
   I have read many / few of books
   ‘I have read many / few books.’
b. J’en ai lu beaucoup / peu.
   I EN have read many / few


(10) a. J’ai lu deux / plusieurs livres.
   I have read two / several books
   ‘I have read two / several books.’
b. J’en ai lu deux / plusieurs.
   I EN have read two / several

(11) a. deux de livres two of books
b. plusieurs de livres several of books

(12) … ça fait deux de bonnets que je perds.
   … it makes two of hats that I loose
   (Bauche 1951:79-80 quoted in Kayne 1977:112 fn.)

(13) J’en ai lu deux / plusieurs, de livres.
   I EN have read two / several DE books

d) Du/des-NPs:

(14) Partitive
   a. Jean : J’ai pris des biscuits qui étaient sur la table. (= (1))
      John: ‘I took (some) of the biscuits that were on the table.’ I.e. part of the set of biscuits.
b. Marie : Oui, j’en ai pris aussi.
      Mary: ‘Yes, I took some too.’

(15) Indefinite/quantitative:
   a. Jean : J’ai vu des biscuits sur la table. (= (5))
      John: ‘I saw some biscuits on the table.’
b. Marie : Oui, j’en ai vu aussi.
      Mary: ‘Yes, I saw some too.’ I.e. a different set of biscuits.

(16) Referential/specific:
      I have seen the kids in the yard it SE is about of Peter, Paul and James
      ‘I saw some children in the yard, namely Pierre, Paul and Jacques’.
b. * J’en ai vus. I EN have seen
   Je les ai vus. I them have seen ‘I’ve seen them.’
The correspondence between ‘partitive article’ and ‘partitive pronoun’ is only partial:

*en cannot* replace all the constituents introduced by the ‘partitive article’: (14), (15) vs. (16).

*en* can replace constituents that are *not* introduced by the ‘partitive article’: e.g. (7), (8), (10).

*en* can replace the two types of constituents with a *partitive meaning* (part-whole): (7), (14).

Diagram 1

Questions:

- What is the structure of the *du/des*-constituents in the intersection, and *more specifically* what is the nature of the *de* element in those *du/des*-constituents?

  No consensus in the literature: for some *de* is an article (Frei, 1960; Damourette & Pichon, 1952) and for others it is a preposition (Clédat, 1901; Gross, 1967; Wagner & Pinchon, 1962). It has also been proposed that *de* has a dual status – preposition or quantificational head (Kupferman, 1994).

- Are the structures of the partitive *du/des*-NP in (1) and of the partitive construction in (7) related?

- Do the quantitative (indefinite) constituents in (5) and (9)/(10) have similar structures?

3. Focus on the intersection

It has been clear since the 70s that partitive (*deux des livres* ‘two of the books’) and quantitative expressions (*beaucoup de livres* ‘a lot of books’) have different structures: according to Milner (1978), the former is analysed as two ‘NPs’ (i.e. N’’) (17) and the latter as a unique ‘NP’ (18) (English and bold ours) (see also Jackendoff 1977). What about *du/des*-NPs?

(17)  
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     N''
    (Spec,N')  N'
      N            complement
       |
      Quantity de N''
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Selkirk (1977) also proposed that simple quantitative expressions and those involving a partitive phrase have independent structures. See Martí-Girbau (2003) for a unitary analysis.
3.1 Partitive du/des-NPs

Don't/de quoi
The pronoun don't replaces prepositional phrases (PP): *du gâteau* in (2) must therefore contain a preposition (*du=de+le*) when it is partitive (2)a. This is supported by (19) (Kupferman 1979:7) where the partitive *du/des-*construction can be replaced by *de quoi* ‘of what’ (see Zribi-Hertz 2003).

(19) Il m’a demandé *de quoi* je mangeais/buvais/prenais.

he me has asked of what I was.eating/drinking/taking

Extraction
A PP cannot cross another one (Abeillé et al, 2004 for a recent reference): the PP *de Zola* ‘of Zola’ cannot be extracted from *des livres* in (20) because it would have to move across a PP (Milner 1978:71 ff.)³. (21) does not involve a *du/des-*constituent, like (7).

(20) a. * C’est * de Zola que j’ai lu [deux [des [les livres]]].
    it is of Zola that I have read two of.the.pl books
    b. * C’est * de Zola que j’ai lu [beaucoup [des [les livres]]].
    it is of Zola that I have read a.lot of.the.pl books

(21) * C’est * de Paris que Jean a acheté [trois [de mes peintures]].
    it is of Paris that John has bought three of my paintings

Resulting structure:

(22) a. [DP trois [PP de [mes peintures]]]  (21)
b. [DP deux [PP de [les livres]]]  (20)a
c. [DP beaucoup [PP de [les livres]]]  (20)b
d. [DP Ø [PP de [les biscuits]]]  (1)
e. [DP Ø [PP de [ce lait]]]  (23)

³ English examples like (i) illustrate the same point. In (ib), the extraposition of the PP of Helen’s first symphony leads to ungrammaticality, because this constituent would have to cross another PP, the partitive structure of those reviews. When there is no preposition as in (ia) and (ic), of Helen’s first symphony can be extraposed. (i) also shows that extraction is not related to definiteness: in (ia) two reviews is indefinite whereas in (ic) those reviews is definite; extraction is fine in both cases.

(i) a. Two reviews have been reprinted of Helen’s first symphony.
b. *Two of those reviews have been reprinted of Helen’s first symphony.
c. Those reviews have been reprinted of Helen’s first symphony.
   (Cardinaletti & Giusti 2002:9, from Selkirk 1977)
The structures in (22) contain a PP without being PPs. That the bare partitive is not a PP is supported by (23)-(24): causative constructions of the type faire faire quelque chose à/par quelqu’un ‘make somebody do something’ (lit. ‘make do something to/by someone’) can only take a DP followed by a PP as (23) illustrates (Milner, 1978:78, labels and brackets ours).

(23) a. * J’ai fait boire [DP Marie] [DP ce lait]. *DP + DP  
I have made drink Mary this milk  
b. J’ai fait boire [DP ce lait] [PP à/par Marie]. DP+PP  
I have made drink this milk to/by Mary  
c. J’ai fait boire [DP Marie] [PP dans cette tasse]. DP+PP  
I have made drink Mary in this cup

(23)a: DP+DP leads to ungrammaticality. (23)b/c: DP+PP is fine. When ce lait is replaced by de ce lait, we observe that the judgements are the same as in (23)a-b:

(24) a. * J’ai fait boire [DP Marie] [DP [PP de ce lait]]. *DP + DP  
I have made drink Mary of this milk  
b. J’ai fait boire [DP [PP de ce lait]] [PP à/par Marie]. DP+PP  
I have made drink of this milk to/by Mary

As the causative sentences in (24) take a combination of complements DP + PP, (24)a should be fine if de ce lait were a PP, contrary to fact. Similarly, as (24)b is grammatical, de ce lait cannot be a PP. Although the meaning of de ce lait is clearly partitive, (24) suggests it is not a PP.


Partitive examples like (1) and (7) can be analysed in the same way: en replaces a PP headed by de.

In the genitive examples (8), en also pronominalises a PP headed by de. ²

3.2 Indefinite/quantitative du/des-NPs

No preposition involved: the PP de Zola can be extracted out of deux/beaucoup de livres in (25). the structure of quantitative constructions and partitives differs (Milner 1978). ³

(25) a. C’est de Zola que j’ai lu [deux livres t].  
it is of Zola that I have read two books  
b. C’est de Zola que j’ai lu [beaucoup de livres t].  
it is of Zola that I have read a.lot of books

Question: If de is not a preposition, what is it?  
Proposal: It is a functional head of the nominal inflectional domain (Ihsane 2008).

² Milner (1978): genitive en and partitive en replace a Prepositional Phrase introduced by de, i.e. de + N” in his terms.
³ Note that beaucoup de livres ‘a.lot of books’ is treated on a par with deux livres ‘two books’, i.e. that it is a quantitative construction (see also (12)) and not a partitive one, contrary to beaucoup des livres ‘a.lot of the books’, which is partitive.
Assumptions:

- Grammatical number is encoded in the highest layer of the inflectional domain, Number Phrase (NumP) (Ritter 1991). Number Phrase: [+/--plural].

- Listemes are not specified for the mass/count distinction in the sense that they are all mass and become count in specific contexts, namely in the presence of some functional elements which include the plural morpheme, the indefinite article, and the count le/les ‘the’ (Borer 2005).6

Standard position on plurality: it is a function from individuals (different from Borer’s analysis). This means that ‘count’ is related to individuated elements, i.e. atoms, and not to a division of mass.7


One reason is that in French it seems that every time a noun phrase is plural there are atoms in its denotation.

(26) Kim a mangé des pommes cet après-midi.
Kim has eaten of the apples this afternoon

Dissociation grammatical number and count reading: the [+plural] and the [+count] features conflate (plurals are count in our analysis), but the [–plural] and [–count] features do not, as [–plural] noun phrases may be mass (du pain/le_mass pain ‘bread/the_mass bread’) or count (un pain/le_count pain ‘a (loaf of) bread/the_count bread’).

Consider (27) and (28), which represent the structure of le/les/un-NPs and du/des-NPs respectively. FP stands for Functional Projection, Ø means that a layer is not projected in the structure and <…> indicates that an element has moved.

The function of the movements in (27) and (28) is to lexicalise the structure: at some point in the derivation, all the projections have to be filled. No other trigger than lexicalisation, in contrast with other types of movement.

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6 A correlation between number marking and the presence of explicit partitives is discussed by Stark (2008, 2013).
7 The presence of atoms in plurals can be illustrated with a join semilattice (Link 1983).
Can the structure in (28) be related to quantitative examples like beaucoup de livres ‘a lot of books’ (9)?

(29) NumP > FP_{quantity} > FP_de > FP_count > NP

- $FP_{quantity}$: Quantities are constituents in the specifier position of a functional layer, as proposed by Cinque for noun modifiers, including numerals (Cinque 1994). $FP_{quantity}$ hosts quantities like beaucoup/peu, plusieurs and numerals.

That ‘quantity’ should be considered as a grammatical category is supported by the fact that some nouns, like blancheur ‘whiteness’, are incompatible with any quantity (Milner 1978:33). Such nominals thus cannot have $FP_{quantity}$ in their structure.

8 Indefinite/quantitative du/des-NPs and quantitative constructions: same element de.

9 Indefinite/quantitative du/des-NPs: en replaces the DP in (28).

8 Quantitative constructions like beaucoup de livres: en replaces a subpart of the nominal inflectional domain, $FP_{de}$ in (29).

4. FURTHER ISSUES

4.1 What is $FP_{de}$?

Contrast between du/des ‘of the’ on the one hand and un ‘a/one’ on the other with aspectual modifiers of the type in x hours, for x hours (Kupferman 1979):

(30) a. ?? Il a bu de la bière en dix minutes.
he has drunk of the beer in ten minutes
b. Il a bu une bière en dix minutes.
he has drunk a beer in ten minutes
c. Il a bu de la bière pendant dix minutes.
he has drunk of the beer for ten minutes
d. ?? Il a bu une bière pendant dix minutes.
he has drunk a beer for ten minutes

8 If nouns can take complements - as generally assumed, the analysis in the text predicts that the complement of the noun cannot be ‘stranded’ when en is used, contrary to fact:

(i) J’en ai lu beaucoup de Zola (de livres). I EN have read many of Zola (of books)
In (i) de Zola is the complement of livre. If en replaces $FP_{de}$ de Zola should be part of the constituent pronominalised by en. However, if, as recent analyses suggest, nouns do not take complements (e.g. Cecchetto & Donati 2013 and the references therein), the issue does not arise.
Il a mangé des pommes en dix minutes.
he has eaten of the apples in ten minutes.

Il a mangé une pomme en dix minutes.
he has eaten an apple in ten minutes.

Il a mangé des pommes pendant dix minutes.
he has eaten of the apples for ten minutes.

Il a mangé une pomme pendant dix minutes.
he has eaten an apple for ten minutes.

Sentences in which du/des-NPs co-occur with for-adverbials, (30)c and (31)c, are better than those in which they co-occur with in-adverbials, (30)a and (31)a. Conversely, sentences in which the une ‘a’ constituent co-occurs with in-adverbials (30)b and (31)b, are better than those in which they co-occur with for-adverbials, (30)d and (31)d.9

The examples with a du/des-NP have an unbounded reading. Proposal: FP_{de} is a nominal Aspect Phrase (AspP) whose head is realise by de ‘of’ (Ihsane 2005):

\[
\text{AspP} \quad \begin{array}{c}
\text{Spec} \\
\text{Asp'} \\
\text{Asp} \\
\text{NP}
\end{array}
\]

The idea of an aspectual phrase in nominals is not new. Alexiadou, Haegeman & Stavrou (2007:274-5) mention languages such as Greek and Polish which have overt morphological reflexes of this functional category:

(33) a. diava-s-m -a (Greek)
read-PERFECT PASS-NEUTER
b. diava-s -a
read-PERFECT -1SG

(33)a illustrates a process nominal with the –s suffix found on the perfective stem of its verbal counterpart (33)b. In (34), we see the opposition between perfective and imperfective aspect on nouns:

The aspectual properties of the clause do not depend on the (in)definiteness of the DPs (Verkuyl 1993:71ff.):

(i) a. Judith ate those three sandwiches.
b. Judith ate three sandwiches.
c. Judith ate sandwiches.
d. Judith ate that sandwich.
e. Judith ate a slice of bread.

All the relevant DPs in (30) and (31) are indefinite. (ia,b) and (id,e) are terminative in Verkuyl’s terminology (in opposition to durative). In other words the event is bounded, i.e. completed. Yet, those three sandwiches in (ia) and that sandwich in (id) are definite whereas three sandwiches in (ib) and a slice of bread in (ie) are indefinite. The difference between singular and plural leads to similar observations: number does not have any influence on the aspectual properties of the event. Although the direct objects in (ia) and (ic) are plural, the former is terminative and the latter durative. (ia) and (id) on the contrary share the same aspectual properties, even if the direct object of the former is plural and the one of the latter singular.

9 The aspectual properties of the clause do not depend on the (in)definiteness of the DPs (Verkuyl 1993:71ff.).
The presence of a ‘quantity’ element leads to a bounded reading:

(35)  a. ?? Il a mangé beaucoup de pommes pendant dix minutes.  
      he has eaten of the apples for ten minutes  

b. Il a mangé beaucoup de pommes en dix minutes.  
      he has eaten an apple in ten minutes

The bounded reading may also be due to the predicate (Ihsane 2008):

(36)   J’ai reconnu des filles dans la rue.  
      I have recognised of the girls in the street  
      ‘I recognised some girls on the street.’

(36) is telic as shown by the ungrammaticality of the for-adverbial in (37):

(37) * J’ai reconnu des filles dans la rue pendant 10 minutes.  
      I have recognised of the girls in the street for 10 minutes

This means that to determine whether a sentence is telic or not, the presence/absence of a *du/des*-constituent is not sufficient. The kind of predicate it involves has to be taken into consideration. As is well-known, achievements (reconnaître ‘recognise’) (and accomplishments like voler ‘steal’…), are bounded and therefore do not admit for-adverbials (Vendler 1957, Doetjes 1997).

4.2 Do referential *des*-NPs fit the picture?

The structure of referential *des*-NPs is the same as the one proposed in (28) – i.e. the *de* component of *du/des* is a functional head of the nominal inflectional domain – but slightly more complex as DP is split:

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10 The aspectual properties of the clause do not depend on the (in)definiteness of the DPs it contains nor on its grammatical number (Verkuyl 1993:71ff.). Consider Verkuyl’s examples (French version ours):

(i)  a. Judith ate those three sandwiches. (Judith a mangé ces trois sandwiches.)  
     b. Judith ate three sandwiches. (Judith a mangé trois sandwiches.)  
     c. Judith ate sandwiches. (Judith a mangé des sandwiches.)  
     d. Judith ate that sandwich. (Judith a mangé ce sandwich.)  
     e. Judith ate a slice of bread. (Judith a mangé une tranche de pain.)

(ia,b) and (id,e) are terminative in Verkuyl’s terminology (in opposition to durative). In other words the event is bounded, i.e. completed. Yet, *those three sandwiches* in (ia) and *that sandwich* in (id) are definite whereas *three sandwiches* in (ib) and *a slice of bread* in (ie) are indefinite. The difference between singular and plural leads to similar observations: number does not have any influence on the aspectual properties of the event. Although the direct objects in (ia) and (ic) are plural, the former is terminative and the latter durative. (ia) and (id) on the contrary share the same aspectual properties, even if the direct object of the former is plural and the one of the latter singular. The same analysis applies to the French examples in parenthesis. Note furthermore that the difference mass/count cannot be at the origin of the distinction bound/unbound as *des*-NPs, which are count, and *du*-NPs, which are mass can be unbounded as seen in the text.

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The clitic *en* can only pronominalize the lower DP, not the higher one. The reason is that it cannot replace referential constituents. PP, FP<sub>de</sub> and the lowest DP are not referential.

5. **CONCLUSION**

The label ‘partitive’ is misleading as only a minority of nominals involving *du/des* (the so-called partitive article) are partitive and as *en* can replace various constituents that are not interpreted as partitive.

We have seen that the *du/des*-NPs that can be pronominalised by *en* are the partitive ones and the quantitative ones.

**Zooming into the structure of these nominals has allowed us to determine that *de* is a preposition in the partitive *du/des*-NPs and a functional head of the nominal inflectional domain in the quantitative *du/des*-NPs.**

**Zooming out has allowed us to classify the other constituents that can be replaced by *en* according to the nature of *de*, i.e. preposition or head of AspP.**

**PARTIAL BIBLIOGRAPHY**


