

# Partitive and pseudopartitive

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## 1 Multi-noun nominals

Approximately five kinds of multi-noun nominals of interest here:

- (1) four pieces of the bread *N-partitive* (2) most of the bread (*Q-*)*partitive* (3) four pounds of bread *pseudopartitive* (4) four drawings of the bread *noun complement* (5) plentiful four dollar bread *attributive measure phrase*

## 2 The N-partitive

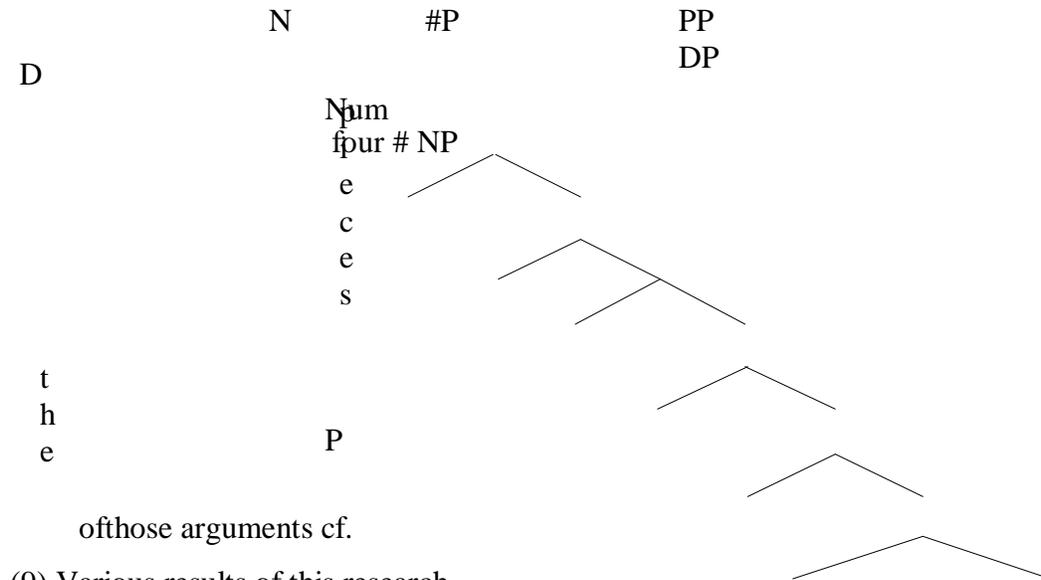
Recursive DP structure

those four warm pieces of [*DP* one fresh loaf ]  
 (6) [*DP* D Num A N of the D Num A N ]  
 [*DP* ]  
 ]

(7) The pieces of the pieces of the pieces of this argument are compelling.

We can think of N-partitives as a kind of noun-complement structure:

(8) DP



(9) Various results of this research

(10) The proud parents of Zoë (11) The four paintings of this castle (12) Each subsequent destruction of this city

The first noun must be semantically relational.

Agreement shows that first noun is the head of the whole DP.

(13) Two pieces of that loaf were/\*was eaten. (14) A particular part of those arguments is/\*are worth considering.

It is tempting to suppose that the first noun can be pro-form *one* with the second noun (phrase) as its antecedent:

(15) every one of the kids (16) those ones of the problems that were unsolvable (17) none of the problems (18) the only one of the six sections that isn't critical

Since pro-form *one* obligatorily deletes after numerals and certain quantifiers, we would readily understand the appearance of partitives that lack overt N1

(19) two ones of the kids (20) most ones of the bread

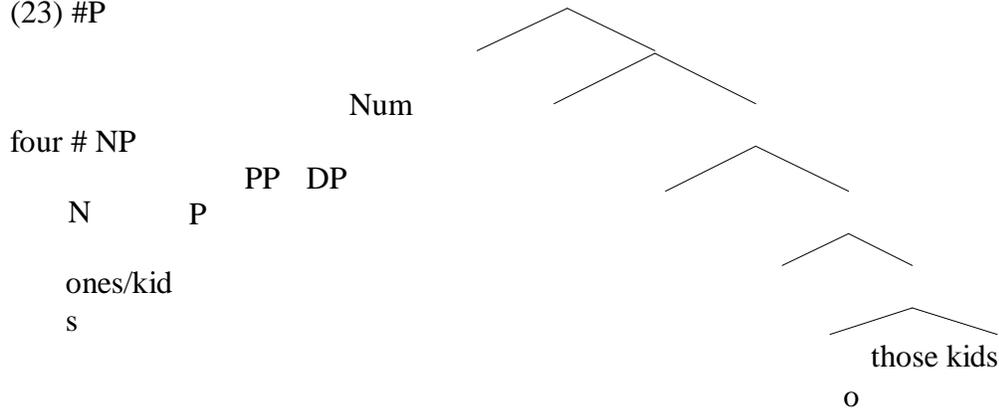
We also understand why quantifier-headed DPs subject to optional *one* deletion in general have optional *one* in the partitive

(21) a. I read each one / those ones b. I read each / those

(22) a. each (one) of the sentences b. those (ones) of the sentences

The problem with this is that nouns like *kids*, *bread*, *sentence* are not themselves relational, so the view of *one* as an anaphor that takes these things as antecedents is a bit troubling.

(23) #P



These examples should probably be treated separately. Let's call them Q-partitives.

### 3 Q-partitive

#### 3.1 The 'partitive constraint' diagnostic

A way that Q-partitives are different from ordinary relational noun constructions: the 'partitive constraint'

- (24) Partitives a. (Tell me about) those four of the prodigies  
b. \* (Tell me about) those four of prodigies

- (25) Non-partitive noun-complement constructions a. (Tell me about) those four paintings/parents/discoveries of the prodigies  
b. (Tell me about) those four paintings/parents/discoveries of prodigies

- (26) Partitives a. (We talked about) most of the issues.  
b. \* (We talked about) most of issues.

- (27) Non-partitive noun-complement constructions a. (We talked about) presentations of the issues. b. (We talked about) presentations of issues.

The same goes for partitives with a quantifier that allows/requires *one*:

- (28) a. We talked about every one / none / the only one / each one of the sentences discussed by Selkirk  
b. \* We talked about every one / none / the only one / each one of sentences discussed by Selkirk

The constraint doesn't seem to apply to N-partitives:

(29) a. We talked about four parts of sentences discussed by Selkirk b. \* We talked about four of sentences discussed by Selkirk

(30) a. The curator examined most pieces of statues in this collection. b. \* The curator examined most of statues in this collection.

Conclusion: N partitives and Q-partitives are different. Here, the former behaves more like noun-complement constructions.

On the partitive constraint: Selkirk (1977), Barwise and Cooper (1981), Ladusaw (1982), Abbott (1996)...

### 3.2 *Extraposition diagnostic*

Extraposition in partitives

– Extraposition from nominals is subject to a locality constraint: No element may be extraposed more than one cycle up from the cycle containing it.

(31) The answers have been rediscovered to this classical mechanical problem. (32) \* [DPTwo of [DPthe answers tPP] ] have been rediscovered [PPTo this classical mechanical problem ].

Noun-complement structures and N-partitives show this effect, too:

(33) Important manuscripts have been discovered on this topic. (34) Four ancient pieces/descriptions of important manuscripts on this topic have been discovered. (35) \* [DPFour badly damaged pieces/descriptions of [ancient manuscripts tPP] ] have been discovered [PPon this topic ].DP

In both cases, a DP (a cyclic node) is embedded within another DP.

### 3.3 Agreement diagnostic

Agreement in partitives is a potential diagnostic for the role of the quantifier coming first. The agreement facts are complex. In some cases the number of the embedded DP matters; in other cases, it doesn't.

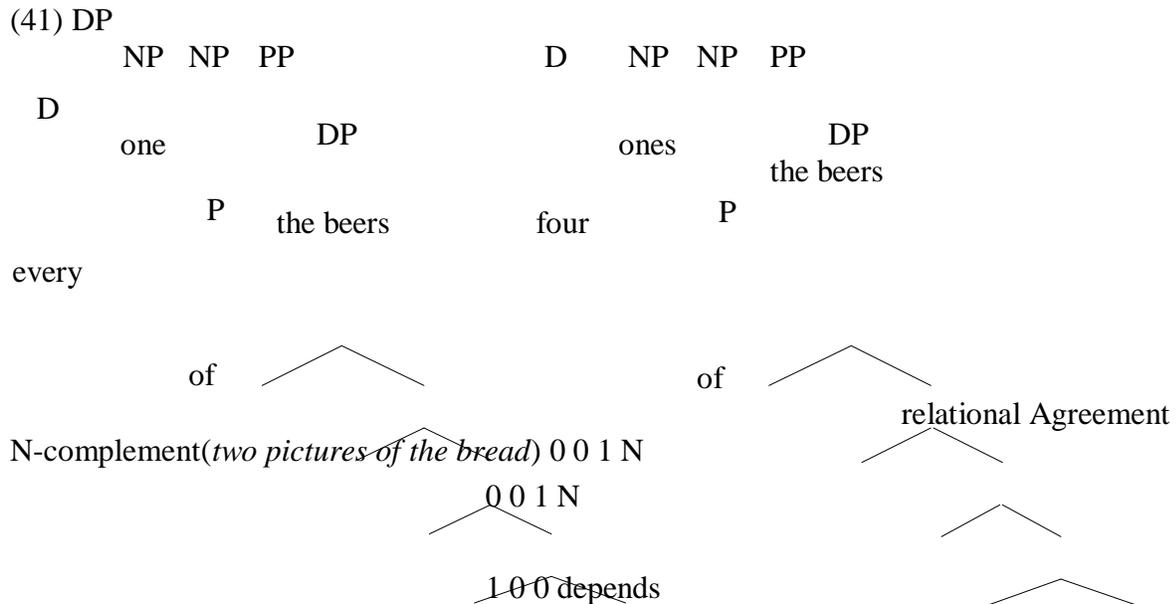
(36) Each of the beers was/?were empty. (37) Every one of the beers was/\*were empty. (38) None/most/much of the loaf of bread was/\*were consumed. (39) None/most/much of the loaves of bread \*was/were consumed.

This makes for another difference with noun-complement and N-partitives constructions  
 Extraposition N1

(40) Structures compared 1  
\*Bare plural N2 1  
DP

N-partitive (*two pieces of the bread*)

Q-partitive (*most of the bread*)



Some of the possibilities for an analysis of partitives:

1. Q partitives are headed by an anaphoric *one*, deletable in the normal way *one* is deletable (e.g. after numerals). The PP is not a complement, but a modifier, akin to 'among the ...'. It's when the part PP is a modifier that the partitive constraint applies.

Strange that a modifier should ever influence number agreement.

5

Set 1: *one* deletion in general and in partitives go together.

(42) a. I found four / each / many / most / all one(s) that Jack brewed b. four / each / many / most / all one(s) of the beers that Jack brewed

(43) a. I found the / every / no *one* that Jack brewed b. the / every / no *one* of the beers that Jack brewed

Set 2: *one* deletion is better in the partitive than in general

(44) a. ?? (Speaking of beers,) I found the first /tastiest /largest that Jack brewed b. the first / tastiest / largest of the beers that Jack brewed

Set 3: Intervening adjectives bleed *one* deletion less readily in the partitive than in general

(45) a. I found four / each / many / most / all interesting *one(s)* that Jack brewed  
b. ?? the / four / no / many / most / all interesting ones of the beers that Jack brewed

Set 4: *Each* and *every* seem to impose a non-restrictiveness constraint on adjectives which come between them and *one*, but only in the partitive (*all* and *most* show a similar effect)

(46) a. I found each / every interesting one that Jack brewed b. ?\* each / every interesting one of the beers that Jack brewed  
(improves with non-restrictive reading of *interesting*) c. each / every goddamn / bloody one of the beers that Jack brewed

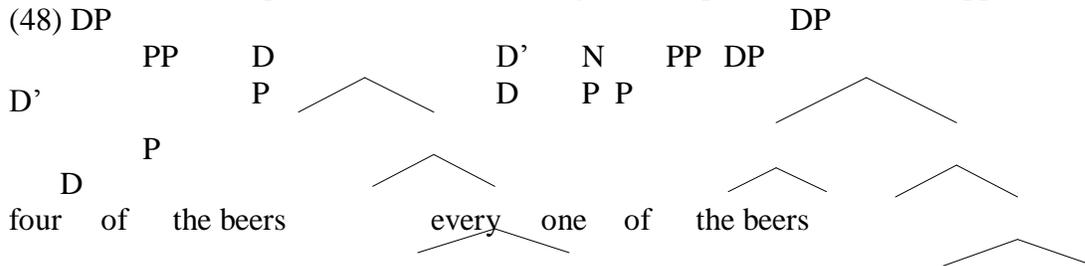
Set 5: Other quantifiers dislike the same expressive adjectives that are good with *each* and *every*

(47) a. I found the / four / most goddamn / bloody one(s) that Jack brewed b. ?\* the / four / most goddamn / bloody one(s) of the beers that Jack brewed

Conclusion: it's not quite clear that we want a full DP + NP structure before *of* for partitives. This gives too many possibilities for (normal, restrictive) modification.

2. Q partitives are DPs headed by the determiner, which can be simply intransitive, or take a NP complement.

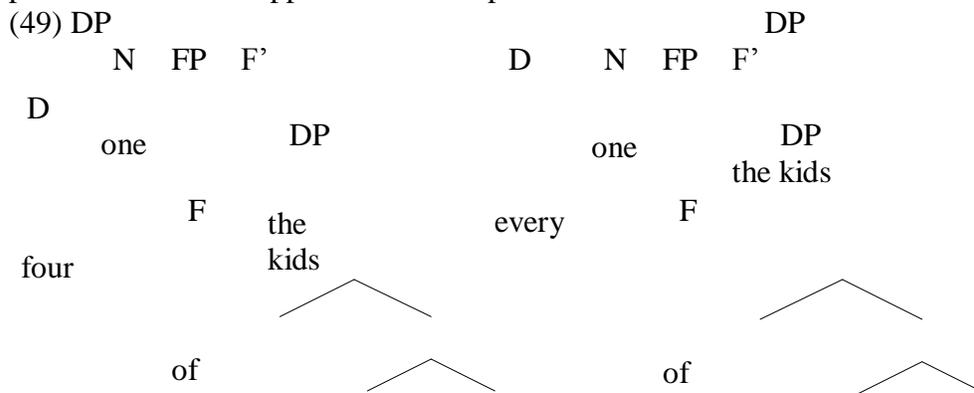
It's when a PP is a specifier of DP in this way that the partitive constraint applies.



Doesn't solve the modification problem: we overgenerate with *every*, and (potentially) undergenerate with *four*

Doesn't make the influence of the embedded DP on agreement any less strange

3. Q partitives are DPs headed by the determiner. Instead of a NP complement, D takes a FP complement headed by F head *of*. The specifier of *of* is a bare N, and the complement a DP. The partitive constraint applies to the complement of F.



Doesn't solve the modification problem: now we expect no modification at all

Possibly does a better job on agreement control by the lower DP. F would be expected to share features with the lower DP (its complement) and the higher D (of which it is the complement).

## 4 Pseudopartitives

### 4.1 Extraposition, where the partitive constraint doesn't apply

Properties of N-complement structures (bis) – N1 is any relational noun. –  
 N1 determines agreement. – DP within DP: a PP attached to the lower DP can't be  
 extraposed – The lower DP can be a bare plural

Four descriptions of [DP classic paintings [PP

Four descriptions of [DP classic paintings tPP

(51) \* [DP

8

PP

### 4.2 Relationality

of Richard III ] ] ] have been discovered.

5

0

)

Richard III ].

] ] have been discovered [of

But where the noun is something like *number, bunch, gallon*, the extraposition facts are sharply  
 different

P

(52) A number/mile/museumful/bunch of classic paintings of Richard III were  
 commissioned.

(53) A number/mile/museumful/bunch of classic paintings were commissioned of Richard III.

(54) Four gallons/truckloads of water from the Charles River were examined. (55) Four  
 gallons/truckloads of water were examined from the Charles River.

Diagnosis: No DP within DP here.

Reasons to think the nouns here are not relational: Relational nouns make salient a relation  
 which can be picked up on in the prenom-

inal genitive. (56) the poem's first  
 piece

(57) the picture's pieces cf.

(58) the winner's friend/parents/child/neighbor/officemate/picture  
*Number/mile/museumful/gallon/truckload* don't, or don't readily.

(59) ?? the paintings' number/mile/museumful (60) \* the water's gallon/truckload

### 4.3 Agreement

Agreement in the pseudopartitive seems to depend on what N is. Patterns of agreement by N1 type:1

(61) Quantity nouns: N2 determines agreement  
 a. a number / lot / great deal of water is being wasted  
 b. a number / lot / great deal of beans are being wasted  
 c. lots of water is  
 d. lots of beans are

(62) Measure nouns: N1 determines agreement  
 a. a pound / liter of water is being wasted  
 b. a pound / liter of beans is being wasted

(63) Container and collection nouns: optionality  
 a. a box/museumful of paintings has/have not been found  
 b. a group/bunch/herd/pride of lions is/are present

### 4.4 Towards an analysis

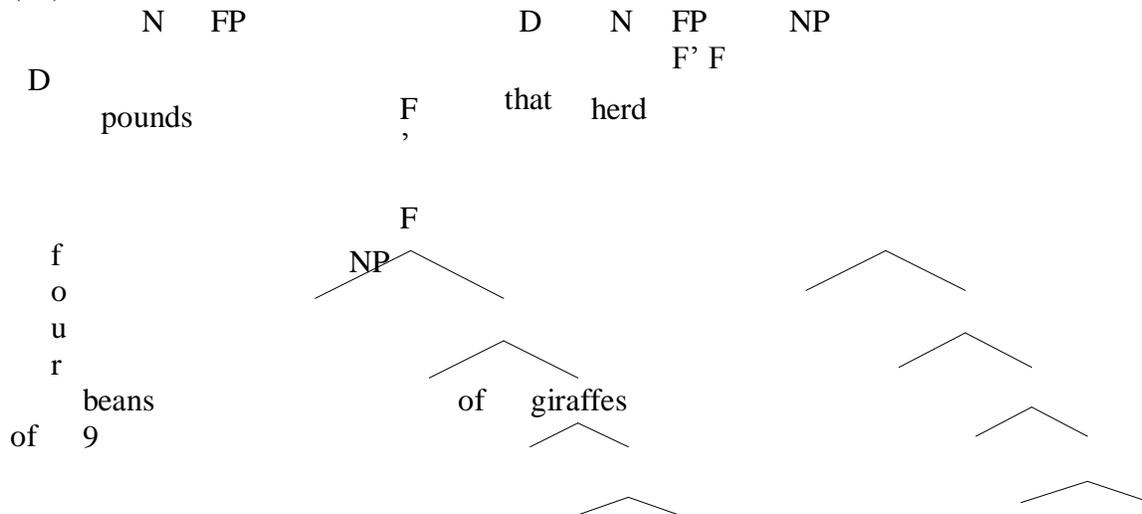
Properties of pseudopartitives

- N is a: quantity noun (*number, a lot, a great deal*), measure noun (*pint, pound, mile*), container noun (*museumful*), collection noun (*bunch, herd, group*)
- No DP within DP: a PP attached to the lower noun can't be extraposed
- The partitive constraint doesn't apply
- Agreement sometimes depends on N1, and sometimes on N2

DP

Again, many possible analyses. Here is one:

(64) DP



(65) Structures compared

\*Bare plural N2 10

N-partitive (*two pieces of  
the bread*)

Q-partitive (*most of  
the bread*)

Pseudopartitive (*two  
pounds of bread*)

Three different structures: 1. Noun  
complement: N1

2. Q-partitive 3.  
Pseudopartitive

## **5 Ambiguities**

Modification of N1

(68) the paintings' box (69) the lion's  
group/herd/pride (70) the sugar's cup

Extraposition N1

1

1 1

relational Agreement

N-complement(*two pictures of the bread*) 0 0 1 N

0 0 1 N

1 0 0 depends

0 1 0 depends

with parts and wholes must be relational. May but need not have anything to do

Selkirk: some nouns can be relational or measure nouns – appearing in the Ncomplement construction or the pseudopartitive

Supposed pseudopartitives with variable agreement

(66) a. a box/museumful of paintings has/have not been found b. a group/bunch/herd/pride of lions is/are present c. two cups of sugar is/are on the table

can influence this, in favor of agreement controlled by N

(67) a. a gigantic box of paintings has/??have not been found b. a majestic group/herd of lions is/??are present c. two porcelain cups of sugar \*is/are on the table

Some of these container and collection nouns readily appear in prenominal genitives as discussed above

These then could be *either* ordinary relational nouns in a noun-complement structure, or more functional N1s in a pseudopartitive.

(71) Ambiguity? N-complement Pseudopartitive

N1 projects a full NP; free modification Nperhaps doesn't project a full NP

N1controls agreement Agreement is complex Embedded DP Embedded NP

Using extraposition to make the call

(72) An assortment of responses to those questions of yours were/was considered

(73) An assortment of responses *tPP*were/\*was considered to those questions of yours

Extraposition is only possible in the pseudopartitive. There, Ncontrols agreement. To get N1to control agreement, you need the N-complement structure.

In support of a bare-N N1in the pseudopartitive: modification (comparative judgment)

(74) A large/varied assortment of responses to your questions was/\*were considered

(75) An assortment of responses *tPP*were/\*was considered to those questions of yours

(76) \* A large/varied assortment of responses *tPP*were/\*was considered to those questions of yours

Conflicting demands: Extraposition requires the pseudopartitive. Modification requires the N-complement structure.

Agreement choices concerning non-pseudopartitives

(77) a bunch of those flowers was/were thrown out on the back lawn

– Selkirk-inspired story: *a bunch* can be the Q of a Q-partitive or, *bunch* is the head N of a N-complement construction

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