The semi-lexicality of quantificational nouns in English pseudopartitives

Heidi Klockmann (h.e.klockmann@uu.nl)
Utrecht University/Leiden University

Com-Syn Talk, Leiden University
April 20, 2017

1 Introduction

In this talk, I focus on a class of items which show a superficial similarity to nouns, but different in important ways which make their categorization problematic:

- Quantificational nouns (Q-nouns), specifically, lot, bunch, and ton.

These resemble nouns in their ability to combine with the indefinite article and the mediating particle of. However, they differ in their inability to control verbal agreement:

(1) A bunch of people were/*was sleeping.
(2) A ton of flowers were/*was given to Myrthe.
(3) A lot of books were/*was sold at the festival.

Compare:
(4) A dolphin was able to escape from its pen into the sea.
(5) Dolphins were able to escape from their pens into the sea.
(6) Jolien’s study of possessives finally resulted in an epiphany.

Question: What are Q-nouns and where does their similarity to nouns come from?

The aim of this talk is to explore the category of Q-nouns. I draw on the notion of semi-lexicality, and show how such Q-nouns combine both lexical and functional properties to create a semblance of nominality.

Roadmap:
- Introduction to semi-lexicality
- Analyzing the basic construction: pseudopartitives, the indefinite, and the particle of
- Morphosyntactic idiosyncrasies of the Q-nouns lot, ton, and bunch
- Relating these to semi-lexicality

Many examples in this handout were drawn from the Corpus of Contemporary American English (COCA) (Davies 2008-) and are marked in the following way: (COCA: Source Year).

2 What is semi-lexicality?

Roughly, semi-lexical is a label applied to those lexical items which show difficult to define behaviors suggesting they are somehow both lexical and functional:
“Certain lexical items display ambiguous behavior: they share properties with lexical categories and at the same time they display functional characteristics.”

(Corver and van Riemsdijk 2001: 3)

This has led to “semi-lexical nouns,” “semi-lexical adjectives,” and “semi-lexical verbs,” i.e. nouns, verbs, and adjectives with functional properties.

- Constructions similar to the one considered here (the pseudopartitive) have previously been labeled “semi-lexical” (van Riemsdijk 1998, Stavrou 2003, Alexiadou, Haegeman, and Stavrou 2008, Hankamer and Mikkelsen 2008).
- The construction is lexical in the sense that it looks like a noun, and functional in the sense that it quantifies.

(7) A bunch/lot/ton of people = (roughly) many people

- This label, however, does not tell us about the morphosyntax of such elements, only that they do not behave like normal nouns or quantifiers would.
- To understand the mixed status of Q-nouns, we need a theory of semi-lexicality.

2.1 Defining semi-lexicality

What does it mean to be lexical?

- Baker (2003) identifies the set of lexical categories as nouns, verbs, and adjectives.
- Halle and Marantz (1993), Marantz (1997), Borer (2005), de Belder (2011) and many others identify roots as the core of a noun, verb, or adjective. Where a root is inserted determines its syntactic category.
- A lexical category such as noun, verb, or adjective, then, is the result of placing a root in the syntactic structure associated with that category.
- Therefore: lexical implies the presence of a root.

What does it mean to be functional?

- Syntactic features seem to be the currency of syntax, where syntactic features refer to grammatical notions like tense, number, animacy, the EPP, agreement probes, etc.
- Features drive syntactic computation (case, agreement, movement, Merge, etc.), and are presumably the core of functional categories.
- Therefore: functional implies the presence of a syntactic feature.

What does it mean to be semi-lexical?

- Studies of semi-lexicality often cite semi-lexical elements as being simultaneously lexical and functional (van Riemsdijk 1998, Corver and van Riemsdijk 2001 and the articles therein).
- If we take this very literally, then semi-lexicality is the combination of lexicality and functionality, i.e. a root and a syntactic feature.
- Hypothesis: Semi-lexicality is what occurs when a root is also specified for a syntactic feature (in the lexicon).
3  Pseudopartitives with Q-nouns

The basic construction involves the particle of and an indefinite article. Lot and ton also allow plural morphology in place of the indefinite:

(8) A lot / ton / bunch of people
(9) Lots / tons of people

This structure has been labeled the pseudopartitive (Selkirk 1977, Jackendoff 1977) and differs from the partitive which requires definite or specific material on the second noun (N2) (Jackendoff 1977, Selkirk 1977, Ladusaw via Keizer 2007, Keizer 2007).

Issues to address here:

- Functional and lexical aspect of Q-nouns (their semi-lexicality)
- Basic structure of a quantificational pseudopartitive
- The indefinite article: last resort to fill an empty Q-head
- The particle of: marker of nominality

3.1  Semi-lexicality of Q-nouns

3.1.1  Functional: Q-nouns and quantification

The semi-lexicality hypothesis predicts Q-nouns to have some syntactic feature. What features might be present on a Q-noun?

- The Q-noun expresses quantification, and possibly carries some type of a Q-feature, like other quantifiers/numerals would.

Comparison to numerals/quantifiers:

Numerals and quantifiers combine directly with nouns to quantify. They pick out a set of the cardinality/quantity specified by the numeral or quantifier.

(10) Many/some/three books

Some numerals and quantifiers also require an indefinite article, but they have the same function, quantification:

(11) A few/a hundred/a dozen books

Pseudopartititives share this quantifying function, despite also requiring of:

(12) A lot / a ton / a bunch of books

Quantifiers, numerals, and pseudopartitives share the property of picking out a set of a certain cardinality/quantity. Presumably, each carry some features related to quantification which makes them functional.

Quantification is expressed in English in a variety of ways, summarized below:
Hypothesis: Q-nouns are in fact quantifiers, but quantifiers with a complex morphosyntax.

3.1.2 Lexical: Q-nouns and roots

The semi-lexicality hypothesis predicts Q-nouns to have a root at their core. What evidence do we have that the Q-noun is a root?

- The construction allows many more Q-nouns than studied here.
- The examples below each mean something along the lines of “many”, but they generate imagery on the nature of the quantity ((15)-(20) identified in the COCA):

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a</td>
<td>lot / ton / bunch / number</td>
<td>of</td>
<td>books</td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>few / hundred / dozen</td>
<td>books</td>
<td></td>
</tr>
<tr>
<td></td>
<td>many / some / three</td>
<td>books</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(14) A wealth of examples
(15) A flood of memories
(16) A parade of witnesses
(17) A torrent of words
(18) A sea of faces
(19) A flurry of lawsuits
(20) A chorus of boos

- The “imagery” seems to come from the semantic content which would be contained in their root.
- Both the indefinite and of are triggered by the use of these nouns in a quantifying way.
- Wealth as a non-quantifying noun is incompatible with a and an N2 mediated by of.

(21) *A wealth
(22) *Wealth of money/houses

Hypothesis: lot, ton, and bunch also contain roots.

Evidence: Their degree of “many-ness” can differ, which could be contributed by the root (which may be bleached to some degree, particularly in the case of lot).

(23) ton > lot > bunch

Degree of many-ness

3.2 Structure of a quantificational pseudopartitive

Pseudopartitives in other languages look similar to the English Q-noun pseudopartitive, with one important difference: the lack of the particle of:

(24) Een hoop mensen
     A lot people
     ‘A lot of people’
In such languages, the Q-noun has been analyzed as the head of some projection in the functional structure of the N2, e.g. QP (Löbel 1989), #P (Grestenberger 2015), CIP/MP (Stavrou 2003), or nP (Hankamer and Mikkelsen 2008).

(25) Juxtaposition construction (pseudopartitives)

\[
\begin{array}{c}
\text{DP} \\
\text{D} \\
\text{Q-noun} \\
\text{N2} \\
\end{array}
\]

Analyses of English and other languages with a mediating particle often try to place the of in the structure (see e.g. Corver 1998, 2003, Schwarzschild 2006, Tănase-Dogaru 2009). Stickney (2004, 2009), for example, assumes a meaningless Functional Projection (FP) to host of.

(26) Stickney (2004, 2009)

\[
\begin{array}{c}
\text{DP} \\
\text{D} \\
\text{a} \\
\text{M} \\
\text{bunch} \\
\text{F} \\
\text{NP} \\
\text{of} \\
\end{array}
\]

Despite the of, I assume a simple juxtaposition structure, as in Dutch, with the label QP for the intermediate projection. I further assume the root of the Q-noun is hosted in a projection immediately dominated by QP (and takes the N2 as a complement).

(27) Q-noun pseudopartitive structure

\[
\begin{array}{c}
\text{DP} \\
\text{D} \\
\text{QP} \\
\text{Q} \\
\text{√P} \\
\text{√Q-noun} \\
\text{N2} \\
\end{array}
\]

3.3 The indefinite article

Agreement indicates that the indefinite article of the Q-noun is not necessarily a marker of singularity:

(28) Pseudopartitive Q-nouns:
   a. A lot of **people were/was** invited to the party.
   b. A ton of **people were/was** invited to the party.
c. A bunch of people were/*was invited to the party.

This phenomenon is not limited to Q-nouns. Numerals and some quantifiers also show such an indefinite, but require plural agreement:

(29) A hundred / a couple people were stalking the dragon.
(30) A few people were fighting in the ballroom.
(31) A dozen eggs were smashed on Paul’s head.
(32) A great/good many donkeys have fallen to the butcher’s knife.

Lower numerals modified by an adjective trigger an indefinite article, but again, it is not correlated with singular agreement (see Jackendoff 1977, Ionin and Matushansky 2004, Ellsworth, Lee-Goldman, and Rhodes 2008, Maekawa 2013, Keenan 2013).

(33) A mere eight companies own nearly all of mainstream media journalism. (COCA: USAToday 2007)
(34) A reported 4,000 delegates were among the 10,000 conventioneers gathered in Charlotte, NC, for the six-day confab. (COCA: Jet 1996)
(35) A suffocating 92,000 fans were in the seats for each game at the L.A. Memorial Coliseum. (COCA: Chicago 2005)
(36) Many others are from Gwinnett County, but a surprising 12 families are transplants from New York. (COCA: Atlanta 2003)

In fact, in the construction above, the numeral the indefinite combines with does not even have to be singular:

(37) Bypassing or tampering with power supplier meters is a growing problem, costing an estimated hundreds of billions of dollars worldwide and accounting for 10% to 40% of all energy use in various countries. (COCA: Futurist 2013)

Proposal: The indefinite article which surfaces in these constructions is related. It is the result of an empty Q-head which cannot be filled despite the presence of the Q-noun, numeral, or quantifier. The indefinite is used as a last resort strategy to fill QP.

- Lyons (1999) develops an analysis of the English indefinite article where it is not related to indefiniteness but cardinality. It is a default cardinality marker for those instances in which no numeral, quantifier, or plurality occurs. It is specified as singular.
- I adopt this notion, but given examples like (37) above, take the default cardinality marker to be unspecified for singularity.
- Under this hypothesis, the use of a default cardinality marker with a Q-noun indicates the presence of an empty QP.
- I take the Q-noun to correspond to a root which is generated under QP. It cannot fill Q, and hence, triggers the default cardinality marker as a last resort.
(38)  Q-noun pseudopartitive structure

3.4  The particle of

Proposal: The particle of does not have a place in the syntactic structure, but is a marker of nominality when multiple nominals are present in a single domain (similar to the dependent case mechanism, e.g. Marantz 1991, Baker 2015, among others).

What defines “multiple nominals”? Seems to be related to the presence of two roots in the structure (though more structure may be involved). Of is inserted between the two elements:

If of is part of a morphological process, it explains why Dutch might have an identical structure, but lack a mediating particle: it lacks the morphological process (and hence, we expect more of’s in English than van’s in Dutch, which seems to be true).

(40)  Een hoop (*van) mensen
      A lot (*of) people
      ‘A lot of people’

4  The morphosyntactic properties of English Q-nouns

The approach above gets us only part of the way in understanding Q-nouns. Q-nouns also show idiosyncrasies between them, which require individual treatment.

4.1  Interpretation

Lot has both a quantificational interpretation and lexical interpretations, presumably homophonous (definitions from Oxford Dictionary). Lot is not multifunctional.
Quantity interpretation: a large number or amount; a great deal (a lot of people)

Lexical interpretations: an open area of land (vacant lot, parking lot), a group of people (Out! The lot of you!), a shipment or sale of sorts (I paid 82% for a lot of five machines), one’s fortunes or future (drawing lots, the lot of the disadvantaged)

**Ton** has a quantificational interpretation and a related, possibly polysemous interpretation (definitions from Cambridge Dictionary). **Ton** may be multifunctional.

Quantity interpretation: very many, a large amount (a ton of people)

Related interpretation: a unit of weight equal to 2000 pounds (one ton of gold)

To exclude the weight interpretation, I make use of nouns which cannot be weighed (mistakes), or for which thinking of it in terms of weight is illogical (people).

**Bunch** has a quantificational interpretation and related, possibly polysemous interpretations (definitions from Oxford Dictionary). **Bunch** may be multifunctional.

Quantity interpretation: a large number (a bunch of people)

Related interpretations: a number of things, typically of the same type, growing or fastened together (a bunch of flowers/keys/grapes/cables) (= “literal bunch”), a group of people (= “metaphorical bunch”)

Q-nouns *lot, ton, and bunch* each roughly mean ‘many’, but the degree of “many-ness” differs between them. They can be ranked as follows:

(41) ton > lot > bunch

**Degree of many-ness**

### 4.2 Morphology

#### 4.2.1 Data

Q-nouns *lot* and *ton* inflect as singular and plural:

(42) A lot of people

(43) Lots of people

(44) A ton of mistakes

(45) Tons of mistakes

*Compare:* A ton of bricks (=2000 lbs. of bricks)

(46) Two/many/a few lots of people

(47) *One lot of people

(48) #Two / many / a few tons of mistakes

Neither *lots* nor *tons* seems to be a true plural:

- *Lots/tons* do not mean ‘a plural of the quantity denoted by a lot/ton’, suggesting they lack the semantics of plurality.

- *Lots/tons* cannot combine with plural-requiring quantifiers or numerals. Their singular forms cannot either.

(46) *Two/many/a few lots of people

(47) *One lot of people

(48) #Two / many / a few tons of mistakes
I do not assume the plural marker to be an indication of syntactic/semantic plurality.

Q-noun bunch does not have a plural form in its quantificational interpretation, though its lexical interpretation (literal bunch, i.e. bunch as a physically connected collection) does:

(50) *Bunches of people/books/stuff

(51) Literal bunch:
    a. She hung more crystals and bunches of herbs throughout the room. (COCA: LiteraryRev 1990)
    b. Angelo purchased two bunches of cut flowers. (COCA: Bk:Blindsight 1992)

The lack of a plural may be subject to variation, as some examples surface in the COCA:

(52) I don’t have bunches of time left. (COCA: CBS_Morning 1992)
(53) Well, I’ve had bunches of different kinds of memory loss. (COCA: NPR 2013)

I assume for now that in its Q-noun usage, bunch lacks a plural form.

Summary: Both quantificational lot and ton have a morphological plural, which does not seem to be semantically plural. Bunch does not inflect as plural in its Q-noun interpretation.

4.2.2 Analysis of plurality

Proposal: The plural marker we see instantiates the Q-head. Being a morpheme, it attracts the Q-noun.

(54) Plurality in the pseudopartitive (lots, tons)

\[
\text{QP} \\
\text{Q} \quad \sqrt{P} \\
-\mathsf{s} \quad \sqrt{Q\text{-noun}} \\
\ldots
\]

This accounts for the complementary distribution between the default cardinality marker \(a(n)\) and \(-\mathsf{s}\). Q-noun bunch is incompatible with this morpheme.

4.3 Agreement

4.3.1 Data

None of the Q-nouns considered, in either their singular or plural forms, can control number agreement on the verb.

(55) Verbal agreement, subject-verb order:
    a. A lot of people were/*was invited to the party.
b. A ton of people were/*was invited to the party.
c. A bunch of people were/*was invited to the party.
d. Lots of power is/*are necessary to cool the building.
e. Tons of power is/*are necessary to cool the building.

(56)  Inverted yes-no questions, verb-subject order:
a. Were/*was a lot of people invited to the party?
b. Were/*was a ton of people invited to the party?
c. Were/*was a bunch of people invited to the party?
d. Is/*are lots of power necessary to cool the building?
e. Is/*are tons of power necessary to cool the building?

Reciprocals, reflexives, and pronouns also track the number feature of the second noun (N2) as opposed to the Q-noun:

(57)  Reciprocals
a. A lot of cars crashed into each other.
b. A ton of cars crashed into each other.
c. A bunch of cars crashed into each other.
d. *Lots of water crashed into each other.
e. *Tons of water crashed into each other.

(58)  Reflexives
a. A lot of cats were cleaning themselves.
b. A ton of cats were cleaning themselves.
c. A bunch of cats were cleaning themselves.
d. Lots of sand caved in on itself.
e. Tons of sand caved in on itself.

(59)  Pronouns
a. I saw a lot of cats the other day. They were sleeping.
b. I saw a ton of cats the other day. They were sleeping.
c. I saw a bunch of cats the other day. They were sleeping.
d. I spilled lots of sugar yesterday. It covered the floor.
e. I spilled tons of sugar yesterday. It covered the floor.

Number-sensitive processes target the second noun (N2) as opposed to the Q-noun.

4.3.2  Analysis of agreement

Q-nouns surface as a bare root under a QP, and carry no number of their own:

(60) \[
\begin{array}{c}
\text{QP} \\
\text{Q} \\
\text{a/(s)} \\
\sqrt{P} \\
\sqrt{\sqrt{Q\text{-noun}}} \\
\vdots
\end{array}
\]

Lacking number, they cannot control agreement or other processes sensitive to number.
4.4 Combinatory abilities: DP-level material

4.4.1 Data

Each of the Q-nouns combines with the indefinite article a. Here, I determine whether they can also combine with definite material: definite articles, demonstratives, and possessives.

Q-noun lot

Neither Q-noun lot nor lots can co-occur with definite DP-level material.

(61) *The lot of people
(62) *This/that lot of people
(63) *My lot of friends

(64) *The lots of butter
(65) *These/those lots of butter
(66) *Our lots of butter

Again, some examples exist in the COCA, but they appear to involve collection lot.

(67) Old maids, the lot of you (COCA: Bk:IrishBlood 2015)
(68) I would prefer to damn this lot of unsufferable bores to the netherworld (COCA: Bk:MyLordVampire 2012)
(69) …to try and assign some sort of martyrdom to David Koresh and his lot of criminals (COCA: NPR_TalkNation 1999)

The quantificational meaning of lot/lots seems to be incompatible with definiteness.

Q-noun ton

The corpus shows that Q-noun ton and tons can co-occur with definite DP-level material.

(70) Definite determiner (ton/tons):
   a. I quite frankly was very surprised that despite the ton of hype and all the excitement over Howard’s debut, the ratings weren’t much bigger than they were. (COCA: CNN_Showbiz 2012)
   b. Had I looked into a crystal ball and seen the tons of extra stress this would cause, well, frustration is getting the upper hand now. (COCA: AssocPress 2007)

(71) Demonstrative (ton/tons):
   a. I don’t know who helped this fellow take out this ton of junk food. (COCA: SatEvenPost 2008)
   b. the “hundreds of thousands of people” who wrote to CBS and all those tons of nuts… (COCA: WashPost 2007)

(72) Possessive (ton/tons):
   a. …those smug French nihilists with their ton of language theory (COCA: SouthernRev 2006)
   b. I could hardly breathe from pushing my tons of junk around. (COCA:
Unlike, *lot/lots*, the quantificational meaning of *ton/tons* does not seem to be incompatible with definiteness.

**Q-noun bunch**

Q-noun *bunch* cannot co-occur with definite DP-level material. Examples with a definite determiner are necessarily interpreted in a literal sense.

(73) He plucks a dark-blue fruit from the *bunch of grapes* he is holding and puts it up to his lips. (COCA: Horticulture 1990)

(74) The *bunch of keys* that felt so heavy in my jacket pocket was totally unnecessary. (COCA: ChicagoRev 2002)

Notice that the use of a phrase like *one-by-one* is infelicitous with definiteness:

(75) He ate a/#the bunch of grapes one-by-one.

(76) He dropped a/#the bunch of keys into the water one-by-one.

*One-by-one* requires a plurality, which is possible with Q-noun *bunch*, but not literal *bunch*. The infelicitousness of the definite article shows that it is only compatible with literal *bunch*.

Demonstratives and possessives (and numerals) are also incompatible with Q-noun *bunch*.

(77) #He ate that / her / one *bunch of grapes* one-by-one.

(78) #He dropped that / her / one *bunch of keys* in the water one-by-one.

Note that once we make use of humans as the N2, such material again becomes possible:

(79) When we took the floor, my friends started passing out like the *bunch of overly stoned dinks* they were. (COCA: Esquire 2012)

(80) As if this *bunch of multinational nimrods* could be Ukrainians. (COCA: Bk:LastPlaneHeaven 2014)

(81) True, it was really good to have the bar and our *bunch of guys* there at night. (COCA: AntiochRev 2004)

(82) One *bunch of dissenters* signed the Declaration of Independence here. (COCA: CNN_LiveSun 2000)

Such examples can be combined with *one-by-one*.

(83) ?One-by-one, the bunch of overly stoned dinks started passing out.

(84) ?One-by-one, this bunch of multinational nimrods proved themselves to actually be Ukrainians.

(85) ?One-by-one, our bunch of guys made their way to the bar.

(86) ?One bunch of dissenters signed the Declaration of Independence, one-by one.

- I assume these involve metaphorical *bunch*.
- If Q-noun *bunch* cannot combine with definite material with an inanimate N2, we do
not expect it do so with a human N2: the content of N2 should not matter.

- Possibly, the acceptability arises from the fact that individuals in a collection of humans are easier to access than individuals in a collection of inanimates (cf. the Animacy Hierarchy, also de Vries 2015, Henderson 2017).

**Summary**

- Neither *lot*/*lots* nor *bunch* permit definite material.
- *Ton*/*tons* permits definite material.
- Both *lot*/*lots* and *bunch* have a collection interpretation which permits definite material. These are excluded from the consideration of Q-nouns.

### 4.4.2 Analysis

**Generalization:** *Lot(s)* and *bunch* are incompatible with definiteness, while *ton(s)* is not.

**Proposal:** *Lot* and *bunch* are lexically specified as [+indefinite] (or [-definite]). *Ton* carries no such specification and is free to occur in both contexts.

**Modeling definiteness and indefiniteness:** Lyons (1999) treats indefiniteness as the absence of definiteness, i.e. the absence of a D-layer.

Applying this to Q-nouns, the structure containing *ton* can project up to DP:

(87) Q-noun *ton*:

```
  DP
 / \
D  QP
 /  /
Q  √P
 /  /
 a/s  √ton ...
```

The structure containing *lot* and *bunch* cannot project past QP:

(88) Q-nouns *lot, bunch*:

```
  QP
 /  /
Q  √P
 /  /
 a/(-s)  √lot,bunch ...
```

The differences in definiteness between the Q-nouns is derived from their lexical specifications (i.e. the construction is not inherently incompatible with definiteness – only certain Q-nouns are).
4.5 Combinatory abilities: adjectives

4.5.1 Data

**Q-noun *lot***

In the singular, *lot* permits modification by intensifiers (*awful, whole, helluva, real, goddamn, fat, tremendous, powerful, mighty, bloody*, etc.):

(89) He spent an awful lot of money.
(90) He drank a whole lot of beer that night.
(91) There were a helluva lot of people there that evening.

Examples with qualitative adjectives also exist.

(92) ...that our clergy are a disreputable lot of pedophiles (COCA: USAToday 2013)
(93) Indeed, I had assembled a fine lot of volunteers. (COCA: Bk:Snowbound 2010)
(94) They resembled a tired-looking lot of bipedal and emaciated six foot-tall greyhounds. (COCA: Analog 1998)

However, such examples seem to involve collection *lot* (*lot* as referring to a group of individuals) rather than quantificational *lot*. Consider:

(95) *Lot ≠ many*
   a. Our clergy are many disreputable pedophiles.
   b. I had assembled many fine volunteers.
   c. They resembled many tired-looking bipedal and emaciated six foot-tall greyhounds.

(96) *Lot = set/group*
   a. Our clergy are a disreputable group of pedophiles.
   b. I had assembled a fine group of volunteers.
   c. They resembled a tired-looking group of bipedal and emaciated six foot-tall greyhounds.

(97) I am getting together quite a little lot of books. (COCA: Smithsonian 2014)

Putting such cases aside, quantificational *lot* seems to only permit modification by intensifying adjectives.

**Q-noun *lots*** does not permit any adjectival modification:

(98) *Whole/awful/helluva lots of butter*

**Q-noun *ton***

In the singular, *ton* permits modification by intensifiers (*whole, fucking, big*), although such examples are rare in the corpus:
(99) My sense is that there’s a whole ton of people interested in sports teams and a whole ton who aren’t. (COCA: Denver 2013)
(100) Okay, we get some towels, a fucking ton of towels. (COCA: NewEnglandRev 2007)
(101) If they proposed a settlement in which the tobacco companies pay a big ton of money... (COCA: CBS_FaceNation 1997)

Q-noun tons, unlike lots, does allow adjective modification. Such examples are also rare, and seem to involve adjectives commenting on the quantity (= “quantity adjectives”).

(102) I could blab about the subsequent meeting with Smith, Jones, and assorted tons of other officials (COCA: Analog 2010)
(103) All over the ranch beside fields, inside various barns, on whole lots dedicated to storage are uncounted tons of stuff needed for farming. (COCA: Esquire 2015)

Q-noun bunch

Q-noun bunch permits modification by intensifying adjectives (whole, big).

(104) A whole bunch of people
(105) A big bunch of money

Examples with qualitative adjectives also exist.

(106) A pale bunch of teenagers sit on the curb outside Big Bat’s licking icecream cones. (COCA: Atlantic 1999)
(107) She also fell in with a wild bunch of friends. (COCA: NYTimes 2015)
(108) “It’s a murderers’ row over there,” says one experienced consultant. “I have to give them credit for collecting a mean bunch of people in one place.” (COCA: AmSpect 2000)

However, such examples seem to involve metaphorical bunch (bunch as referring to a metaphorical collection, as with people) rather than quantificational bunch. Consider:

(109) A pale bunch of teenagers sit on the curb = a pale group of teenagers ≠ many pale teenagers
(110) She fell in love with a wild bunch of friends = a wild group of friends ≠ many wild friends
(111) Collecting a mean bunch of people in one place = a mean group of people ≠ many mean people

I put such cases aside.

Summary

- Lot, ton, and bunch each allow intensifying adjectives to occur in a position between the indefinite and the Q-noun.
- Lots does not allow adjectival modification.
- Tons allows adjectival modification, with adjectives commenting on the quantity.
- Both lot and bunch have a collection interpretation which permits qualifying adjectives.
These are excluded from the consideration of Q-nouns.

### 4.5.2 Analysis

**Proposal**: Different types of adjectives Merge in different positions (Cinque 1994, Scott 2002, Svenonius 2007), and where they Merge affects whether they combine with a Q-noun or not.

**Adjective positions**: Quantity adjectives are modifiers of QP, while intensifying adjectives modify the root itself.

(112) Adjective positions:

```
DP
  \(\text{\_}\)  QP
  D  Q
  Quantity adj  \(a(-s)\)  \(\sqrt{\text{Q-noun}}\)  \(\cdots\)
  Intensifying adj
```

Pattern:
- *Lot, ton, and bunch* each permit intensifying adjectives.
- *Lots* does not permit any adjectival modification.
- *Tons* permits quantity adjectives but not intensifying adjectives.

Singular *lot, ton, and bunch* allow intensifiers to occur under QP:

(113) Q-nouns *lot, ton, bunch*: intensifying adjectives

```
(DP)
  (D)  QP
  Q  \(a(-s)\)  \(\sqrt{\text{Q-noun}}\)  \(\cdots\)
  Intensifying adj
```

*Lots* does not allow adjectival modification. In its singular, it permitted intensifiers, but the movement to Q which takes *lot* away from the node the intensifier modifies seems to prevent the occurrence of an intensifier:
Tons allows quantity adjectives (but there were no examples of intensifiers). Given movement to Q, intensifiers are not expected, but quantity adjectives can occur.

Possibly the lack of quantity adjectives with lots relates to its lack of a D-layer.

### 4.6 Summary

English Q-nouns show certain idiosyncrasies, namely:

- The ability to combine with the morpheme –s: lot and ton do, bunch does not.
- The ability to combine with definite material: ton does, bunch and lot do not.
- The types of adjectives which occur: bunch, lot, and ton take intensifiers in the singular, but not in the plural; ton allows quantity adjectives in the plural.

These idiosyncrasies must be associated with the Q-noun itself, given that they do not form a coherent class of Q-nouns. Such lexical specifications are part of their semi-lexicality.

### 5 Conclusions

- English Q-nouns in the pseudopartitive construction function like quantifiers, despite having a basic nominal morphosyntax.
- This follows from their semi-lexicality: They are simultaneously lexical and functional, i.e. they contain a root, but have a quantifying function. Since they cannot sit in Q (unless –s is present), the default cardinality marker a is required to fill Q.
- The particle of is part of a morphological process which distinguishes “nouns” (here based on roots) in English, not present in all languages. Of reflects the noun-like status of Q-nouns.
- Recall the table below:
Morphological expression of the quantifying function:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>lot / ton / bunch / number of books</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>few / hundred / dozen books</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>many / some / three books</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- We can view this as a grammatical cline:
  - The *of* diagnoses the noun-like status of the quantifying element (presumably lost when something ceases to have the required “nominal” properties).
  - Loss of *of* then implies a loss of “nominality,” which might be the first thing to go in grammaticalization.
  - The indefinite is a Q-marker, which diagnoses the inability of that element to sit directly in the Q-head.
  - Loss of *a* then implies an additional level of “functionality,” i.e. the ability to lexicalize Q.
- The semi-lexicality of these elements is also evident in their idiosyncrasies, which relate to their (in)compatibility with the morpheme –s, certain types of adjectives, and definiteness.

6 References


