Semantic Plurality

English collective nouns and other
ways of denoting pluralities of entities

Laure Gardelle

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General Editor

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efk.koerner@rz.hu-berlin.de

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ENGLISH COLLECTIVE NOUNS AND OTHER WAYS OF DENOTING PLURALITIES OF ENTITIES

LAURE GARDELLE

Université Grenoble Alpes / LIDILEM

JOHN BENJAMINS PUBLISHING COMPANY

AMSTERDAM & PHILADELPHIA

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Introduction

Why study semantic plurality and pluralities of entities?

In order to refer to, say, a number of cows in a field, the English language offers a variety of noun phrase types, such as *(several) cows* (a noun phrase headed by a count noun in the plural), *a number of cows* (a binominal noun phrase with what some linguists call a 'complex quantifier'),[1] *cattle* (an NP headed by a lexical plural) or *a herd* (where the head is a count collective noun). Each of these noun phrases (NPs) denotes a plurality of entities, that is, 'more than one' entity – more than one cow. In other words, they all have a /plurality/ feature. This is achieved in different ways, though, and the object of this book is to see how the NPs, especially the nouns in those NPs, differ in their contribution to the expression of plurality. For instance, *cow* does not denote plurality at a lexical level; it is the morphosyntactic plural added in discourse that gives the NP plural reference. Conversely, the plural feature in *cattle* is part of the lexical content of the noun (hence the label 'lexical plural' used for this kind of noun). *Herd*, too, implies several animals; yet the noun itself is not grammatically plural, and as the *cattle* in the field may belong to different *herds*, the nouns *cattle* and *herd* group the entities on different bases.

Each of these ways of referring to a plurality of entities has been partly researched; but because there has never been a comparative study of all of them, a number of major issues have been left unsolved. A comparative study is precisely what the present volume proposes, taking into account the noun and NP types sampled above, but also others, such as bound variable NPs (e.g. *every student*) or singular non-count nouns such as *furniture*. The expression of plurality, as can be seen, goes far beyond the grammatical plural; plurality is therefore taken here as a semantic feature, namely, the seme 'more than one' – the further advantages of this semantic approach are discussed later on in the chapter. The focus will be primarily on nouns, but NPs will have to be considered as well, to understand the interactions between lexical and discourse levels. For instance, the morphosyntactic plural, reference, agreement and bounding in context ultimately concern phrases, not just nouns. In addition to offering new perspectives on existing debates, resulting in a

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1. For some linguists, the structure is rather: non-count quantificational noun + *of* complement.

number of new answers, a major contribution of the study is to bring out the consistent gradient of construal for pluralities of entities in English. Each chapter will contribute to placing grammatical or lexical types along a Scale of Unit Integration, which will be fully laid out in the general conclusion (Chapter 7).

Indeed, the wide range of ways of denoting pluralities of entities is not just an example of the 'infinite variety' of language, and as such, interesting but rather insignificant; on the contrary, the variety reflects the complexity of one of the most fundamental cognitive operations, namely, synthesis. Synthesis, and its opposite, analysis ("breaking complex things into smaller parts", Trask 2007, entry *lateralization*), are so fundamental that they are lateralised in the brain: synthesis is mainly carried out in the minor hemisphere, while the major hemisphere is chiefly responsible for analysis (ibid.). Synthesis does not just involve the capacity to perceive an individual entity out of a number of parts, but also, when there are several entities, the capacity to abstract from the fundamental uniqueness of each of them (if relevant) in order to treat them together – categorising them as members of the same class, or of the same group.

Grouping entities together to make sense of the world goes far beyond issues of perception and categorisation: everyday experience provides recurring evidence that collective action is not just the sum of individual acts. Broached from this angle, pluralities of entities have been the concern of several fields of research beyond linguistics: philosophy (plural logic), mathematics (set theory), social sciences (study of the collective mind, of the behaviour of groups), biology (collective behaviour, for example for ants or bees), or robotics (programming insect robots to act as groups). Strong political statements, too, reflect the grouping operation at work in collective action – for instance, the American motto *e pluribus unum* ("one out of many"), or more recently, *stronger together* for Brexit opponents. The collective perspective is the opposite of individuation, another driving force of perception, conceptualisation and experience.

It is therefore natural that there should be a whole range of ways to construe pluralities of entities, and that at lexical level, a significant number of nouns should include a plurality feature in their denotation. A sample of everyday English shows a profusion of such nouns: *collection*, *set*, *array*, *range*, *group*, *pile*, *bunch*, *furniture*, *crockery*, *glassware*, *belongings*, *groceries*, etc. – the present volume proposes a typology for all of them, for further reference in research or for databases such as WordNet. To these nouns must be added metaphorical complex quantifiers such as *a chain of*, *a string of* (in which *chain* or *string* are not themselves collective nouns), and terms for groups of animals that are a source of amused curiosity even for native speakers, with whole books devoted to the most unusual ones (*a parliament of owls*, *an aurora of polar bears* and so on).

Yet despite the centrality of the grouping operation, nouns and NPs that denote pluralities of entities have not been considered from that angle. In English linguistics, as will be seen in more detail later on in this volume, the focus has been either on lexical plurals, within the field of grammatical number (they are nouns that do not have a singular form, e.g. *belongings*), or on the class known as 'collective nouns', especially count collective nouns that license override semantic agreement (e.g. *committee: the committee is... / the committee are...*). Collective nouns are also mentioned in studies of meronymy, but only marginally, as one of the non-prototypical types of part-whole relations.

This dearth of comparative studies has led to major conceptual vagueness and a lack of consensus, especially around the term 'collective': it is often used whenever there is an idea of 'more than one', but then it is far too broad to capture the variety of types of construal. It is true that etymologically, the word *collective* merely involves the gathering of a plurality of entities: it is borrowed from the Latin *collectivus* ("which groups together, gathers", TLFi 2018, entry *collectif*). But for want of more refined labels, the word has been used in what Corbett (2000: 13) calls "a bewildering variety of ways", concluding: "these uses are so different that the term has become almost useless" (Corbett 2000: 117). Gil (1996: 69), in his overview of the uses of the term in linguistics, finds "a history of use and abuse", such "terminological confusion" that each study should specify its own definition of the word. Here are a few examples of meanings, taken mostly from Gil (1996).

A first sense is that of a non-additive whole, that is, a whole that is more than the sum of its parts: "lexical items, denoting a plurality of objects endowed with some form of additional structure" (Gil 1996: 63). For instance, in *John photographed the boys / the team*, only *team* is non-additive, adding to the sum of players the idea of a specific structural organisation (they do not play against each other, they wear the same jerseys, etc.). In older studies, *collective* is also applied to non-count nouns such as *water*, as in Quine (1960: 91): "I should indeed prefer 'collective term' to 'mass term' for words like 'water' and the like, were it not too apt to suggest such unintended cases as 'flock', 'army', etc.". Allan (1976), too, regards *water*, *sugar* or *coffee* as collective, and uses the close label "collectivized nouns" for words such as *elephant* with a zero plural morpheme (*three elephant_*). A third sense is found in the phrase "collective-associative", to describe Old English nouns in *ge–*, such as *gelandan* ('fellow countrymen'), based on *(beoþ) gelandan*, 'they have a country-together', or Latin nouns in *co(n)-* (*conjux, concubina, …*) (Wyss 1983: 61). The individuals are considered together and viewed as having some form of association, such as kinship, activity, or ownership. A fourth sense of 'collective' contrasts with 'distributive', in the nominal

domain.[2] It identifies a grammatical feature which, in some languages, is added to the number system (but not itself a number feature) – for more examples, see for instance Corbett (2000: 111–120). Collective markers indicate that the entities should be considered together as a unit; in Saanich (North Straits), translations of collective markers into English often involve phrases such as 'a bunch of' or 'lots of' (Montler 1986: 10). Collective markers often indicate that the entities are spatially contiguous, as in Sierra Popoluca (Mexico), for which a collective marker added to the nouns for 'house', 'paper' or 'rock' gives the translations "many houses together, a village", "much paper in a pile" and "many rocks, a rocky place" (Elson 1960: 219). Conversely, distributives distribute the members over various locations, or over various sorts. For instance, in Kwak'wala, a Wakashan language of British Columbia, a distributive marker is added to indicate fish *of different species*, whereas no distinction is made between 'a fish' and 'several fish of the same species' (Boas 1911: 8). A fifth sense of 'collective', again contrasting with 'distributive', applies to the semantics of predicates, regardless of any specific grammatical marking: a collective predicate is one that applies to a group as a whole, whereas a distributive predicate applies to each member individually (Landman 1989: 165). For instance, *be unanimous* is a collective predicate – for further discussion of the validity of the distinction, see § 3.1.1, and more generally Winter (2002).

The fact that the various senses of 'collective' overlap only partially means that, for instance, an NP headed by a collective noun may combine not just with a collective predicate (e.g. *the jury was unanimous*), but also with many distributive predicates (e.g. *the juries were big* ascribes a size property to each jury viewed as a single entity, as an 'atom'). The vagueness of the term 'collective' also affects research on the linguistic category of 'collective nouns'. For instance, as will be seen below, all linguists agree on the status of count collective nouns (e.g. *committee*), but there is a seemingly insoluble lack of consensus for non-count nouns (such as *furniture*), while lexical plurals that denote a plurality of entities (e.g. *belongings*) are rather arbitrarily excluded by most, on the grounds that they do not exhibit a discrepancy between singular form and plural meaning. In other words, while everyday language gives 'collective' a very broad sense (any expression that has a plurality feature), most of the research on collective nouns has restricted the applicability of the term to count nouns only, with a strong focus, in English, on those that license semantic override agreement. As for linguists who argue for a broader sense of 'collective noun' today, as will be seen, they find it difficult to label the nouns targeted

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2.   Distributives and collectives are not strictly opposites: their context of appearance is not equivalent (e.g. the collective is compatible with the dual number, but the distributive generally is not), and a given language may have markers for the two values, so that 'not distributive' does not entail 'collective', and vice versa.

by the narrow sense and to establish clear boundaries for the broader category (for instance, should lexical plurals such as *belongings* be added? What about *number*, as in *a number of people*?). The object of this book is therefore to contribute to a better understanding of the linguistic means of denoting pluralities of entities, taking the uncontroversial core of the linguistic class of 'collective nouns' as a starting point, and gradually working towards other items that have a semantic /plurality/ feature.

The following sections lay out a number of theoretical prerequisites for the present study. After a definition of the concept of 'plurality of entities' and a list of the linguistic means available at either lexical or discourse level (§§ 1.1 and 1.2), § 1.3 discusses the advantages of a semantic feature approach to plurality, as opposed to a grammatical approach (number). Section 1.4 then focuses on the so-called class of 'collective nouns', to consider the points at issue in further detail. The chapter concludes with a number of leading questions for the volume.

1.1   What is a plurality of entities?

Plurality is defined by the OED (2018) as "the fact or condition of denoting, comprising, or consisting of more than one", and a plurality is "an instance of this", as in *a plurality of worlds*. A plurality is therefore whatever is denoted by a noun or a noun phrase that includes a /plurality/ feature, that is, the feature 'more than one' – *mixture*, *foundations*, *the Romans*, *John's garden furniture*, *belongings*, and so on. What will be considered here are more specifically pluralities of *entities*, that is, pluralities whose parts are discrete elements – as in the last three examples. In sum, the term *plurality of entities* is taken here as an umbrella term for a collection, a group, an aggregate, a set, or any number of entities considered together.[3]

1.1.1   'Plurality' compared with 'aggregate' and 'set'

The words *collection* and *group* would be inadequate as umbrella terms for any number of entities considered together: *collection* is used for inanimates (OED 2018), while *group*, without contextual clues and without a complement, brings humans to mind (e.g. *I saw a group*). *Aggregate* and *set*, however, are sometimes found with the very general meaning given here to *plurality*; it is therefore necessary to explain why *plurality* has been preferred for the present study. As noted by Gerstein (1996: 40),

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3.   A *category* in the cognitive sense (e.g. the category *table*) is not a plurality: it is a class of objects embodied in a concept (Eysenck & Keane 2005: 294), not a plurality of objects actually found together in a given context.

"[d]ictionaries provide no substantial help: a standard dictionary defines a set as a 'collection' of objects, a collection as an 'aggregate', and an aggregate as a 'collection'".

Aggregate takes on different senses depending on the authors. Potter (2004: 21) uses it as an umbrella term for *set, class, extension* and *collection*. But others, in the wake of Jackendoff (1991: 20), define an aggregate much more specifically as a material entity that is not bounded and that has internal structure (that is, which is made up of several individuals, Murphy 2010: 353). In this sense, aggregates are typically expressed by plural NPs (Murphy 2010: 353), such as *cattle* or *buses*, and are opposed to individuals (e.g. a pig), substances (e.g. water), and groups (e.g. a committee). It is this sense of *aggregate* that has made its way into Huddleston & Pullum's reference grammar (for instance, *furniture* is said to denote an "aggregate of heterogeneous entities", while *committee* is a "collective noun", 2002: 336, 343, 501 – see also, for instance, Ballard 2013: 82–83), as well as, more crucially for the present study, into research on collective nouns. Joosten (2010) applies the term *aggregate noun* to non-count nouns such as *furniture*, in specific contrast to *collective nouns*. The present volume will confirm that this distinction between 'collective' and 'aggregate' nouns is important, so that *aggregate* will be used in the very specific sense it has in studies of collective nouns, rather than as an umbrella term for an instance of 'more than one' entity.

As for *set*, which is found in particular in the field of mathematics (set theory), it seems very close to *plurality* at first sight: "A set is formed by the grouping together of single objects into a whole" (Hausdorff 1957: 11), and these objects are its members. Examples of finite sets are "the set of the inhabitants of a city, the set of hydrogen atoms in the sun, and the set of natural numbers from 1 to 1000" (ibid.). But the notion of *set* as used in mathematics is not the most appropriate to consider conceptualisation in natural language: in mathematics, a set may be made up of a single element (singleton). For instance, the set {my goldfish Bubble} contains only one member, which is that goldfish (Potter 2004: 22). A set may even be empty: as summed up by Potter (2004: 58), "Ø is a set". Conversely, in linguistics, plurality stands in sharp contrast with singularity, and implies occurrences.

All in all, the term *plurality* is the one that appears least ambiguous. In everyday language, *a plurality* (*of worlds, opinions, identities,* and so on) indicates 'more than one'; the word is also used in formal semantics for what is denoted by plural noun phrases, whether conjoined NPs (*the diamonds and the rubies*) or NPs headed by morphological plurals (*the gems*) (see for instance Schwarzschild 1996: viii). Moreover, the word establishes a logical connection between the extralinguistic dimension (e.g. the gems being referred to) and the linguistic feature (/plurality/) encoded in the noun or noun phrase. The term is not perfect: in a non-count use, *plurality* is sometimes used synonymously with *plural number*

(e.g. Rotgé 2009: 101, Acquaviva 2016: 203). But using the term *semantic plurality* removes any ambiguity.

1.1.2   Do collective nouns denote pluralities?: The concept of 'internal plurality'

In formal semantics, collective nouns such as *bunch*, *deck* or *committee* denote "singularities", not pluralities: they denote a single element (e.g. Montague Grammar, Schwarzschild 1996: 176). For instance, although a deck of cards contains several cards, the NP *the deck* triggers anaphoric *it* (not *they*); for humans, *the committee* may trigger anaphoric *it* and *which*, which carry an /inanimate/ feature – in which case, reference is therefore to one institution, not to a plurality of humans. In this respect, collective nouns differ from plural NPs, such as *the cards* or *the members*, which require plural agreement. Consequently, should they be excluded from the study – might semantic plurality be the wrong background for them?

The stand taken here, following the French Guillaumian framework, is that there is a /plurality/ feature, in the form of *internal plurality*. This key notion was coined by Guillaume (1964, "pluralité interne"), and then further developed for French (e.g. Furukawa 1977; Serbat 1993) and English (Hirtle 1982, 2009; Wickens 1992; Gardelle 2016a, 2018a). Guillaume (1964: 26) defines two types of plurals. The 'typical' one is the external plural, obtained via the morphosyntactic plural number (e.g. *books*). The movement (or "tension") of the mind is one of expansion, from the singular (the unit) towards the plural. The common 'more than one' sense results from an interception of this movement at some medial point of expansion (e.g. *several books*) (Hirtle 1982); while intercepting the movement at its term, as its maximal limit (i.e. when all the possible instances of the class are denoted), yields a generic interpretation (e.g. *Dogs [are vigilant]*) (Wickens 1992: 16). The second kind of plural is the internal plural; it shows the opposite movement, namely, a contracting movement towards the singular, which is intercepted before it reaches the singular – in other words, the internal plural "signifies the perception of several under a contracting, integrating unit".[4]

The internal plural can be exemplified by the Old French determiner *un(e)s* (Guillaume, ed. Lowe 2007: 83). *Un(e)s* morphologically resembles a singular indefinite article, *un(e)*, to which a plural morpheme *–s* has been added. In Old French, it is only used with nouns such as *unes endentures* ('a denture'), or *unes obsèques* ('a funeral'), and signifies both "one", via *un(e)*, and "internally many" (via the *-s*),

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4.   "Le pluriel obtenu en tension I, à plus ou moins grande distance du singulier dans un mouvement qui y conduit, est le pluriel interne, lequel signifie la vision de plusieurs sous une unité resserrante, intégrante." (English translation mine)

reflecting the fact that *endentures* or *obsèques* denote a single whole (just one set of dentures, one funeral) composed of several parts that are not conceptually autonomous – what Acquaviva (2008) would call "non-simplex" elements. In other words, with the internal plural, the plural is "infra-singular", that is, an "imperfect, unfinished singular which has roots below itself"; "internal number is a construal of plurality that resolves itself ultimately as a view that is externally one, though internally several". (Guillaume, ed. Valin, Hirtle & Joly 1992: 96).[5] This analysis yields Figure 1.
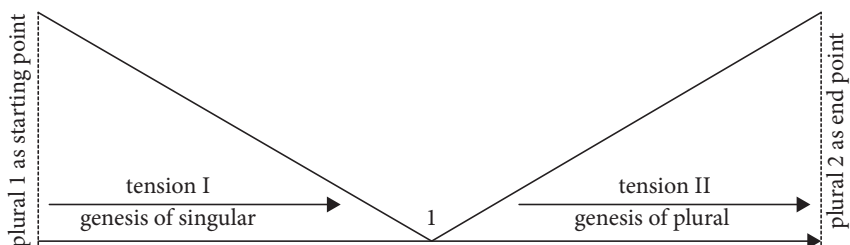
Figure 1. The external and internal plurals according to Guillaume (1964) (translation mine)

In Old French, the internal plural is part of the grammatical number system, through the determiner *un(e)s*. In modern French, it is no longer a grammatical feature, but Guillaume considers that it still exists semantically, in the form of collective nouns; the examples he gives are *une dizaine*, *une centaine* – an equivalent in English would be *a dozen*. The analysis is extended by Furukawa (1977) to nouns such as *cieux* ('heavens'), which does not mean 'several skies', but 'an expanse of sky'.

Studies of French collective nouns have applied this analysis to all count collective nouns, such as *comité* ('committee') – see for instance Flaux and Van de Velde (2000: 57), Lammert (2010: 175). The plurality of members is part of the construal, in addition to the singular whole, as evidenced by the possibility of collective predications (e.g. *le comité s'est réuni*, 'the committee met'): these are impossible with singular nouns that do not have a plurality feature (e.g. **l'étudiant s'est réuni*, *'the student met'). In English, the possibility of plural agreement outside the NP for humans and, more rarely, animals (e.g. *the committee have ...*), is further evidence of internal plurality.

The concept of internal plurality must also be extended to non-count singular nouns such as *furniture*, which are compatible with the preposition *among* (e.g.

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5.   "[S]ingulier imparfait, inachevé, qui a des racines au-dessous de lui-même". / "[l]e nombre interne est une vue de pluralité qui se résout *in finem* en une vue d'ensemble extérieurement une, quoique intérieurement multiple". (English translation mine)

among the furniture on display), unlike non-count nouns that do not have a /plurality/ feature (e.g. *among the water).

1.1.3   Do plural NPs denote pluralities?: The singularist approach

Intuitively, the answer is an obvious 'yes': a plural NP headed by a count noun in the plural, such as *the chairs*, is commonly thought to refer to plural objects – in the example *the chairs*, it is thought to refer plurally to each chair at once ('plural reference approach'). In philosophy, logic and formal semantics, however, this is a strongly debated issue: the 'singularist approach' to plural NPs, which is dominant in formal semantics (but not in philosophy), argues instead that reference is to a single entity, namely, a set (Carrara & Moltmann 2016: viii). In other words, "plural individual noun phrases are singularity denoting" (Schwarzschild 1996: 161). For instance, for an action to be performed, the members do not all need to be involved. Typical examples are *The Romans built the aqueduct* (Link 1998: 21), or *We won the Second World War* (said by a speaker who might not even have been alive at the time).[6] Similarly, the singularist approach regards conjoined NPs (e.g. *the cows and the pigs*) as denoting a set of sets, therefore, once again, a single entity (Laycock 2006: 178).

The arguments for and against the singularist approach will be considered in Chapter 4, as the singularist approach raises the crucial question of the differences in construal between plural NPs (e.g. *the students*) and collective NPs (e.g. *the group*). But at this stage, it can be said that whichever approach is retained, plural NPs headed by count nouns do refer to pluralities of entities: in the singularist approach, the concept of 'internal plurality' applies, although it is not used in these frameworks. The single entity denoted by the NPs is identified as a 'set', or for the philosopher Russell, a "<u>collection</u> as one" (Carrara & Moltmann 2016: vii – emphasis added), that is, a collective entity.[7] Moreover, these NPs license collective predicates (e.g. *the students met*, *John and Mary met*).

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6.   Semantic studies have devoted much attention to non-distributive verb phrases, but other parts of speech also involve pluralities, such as some adjectives (*various*) or quantifiers (*many, a number of*).

7.   Given my focus here, this sketch of studies in formal logic and semantics is very much simplified and hardly does justice to the field as a whole. For further references, see for instance Carrara, Arapinis & Moltmann (2016) and the works cited there.

1.1.4   List of linguistic means available to denote pluralities of entities

Pluralities of entities may be denoted by the following forms:

– at lexical level, through nouns:
  1. lexical plurals, that is, non-count plural nouns, that denote entities, e.g. *clothes*
  2. count collective nouns, e.g. *committee*, *collection*
  3. non-count singular nouns that denote several entities, e.g. *furniture*[8]
– at discourse level, through NPs:
  4. NPs headed by a noun which itself carries a plurality feature (1–3 above), e.g. *(John has bought) new garden furniture*
  5. conjoined NPs, e.g. *John and Mary (are a happy couple)*
  6. NPs headed by plural count nouns; e.g. *the Romans (built the aqueduct)*. The plural NP may be part of a broader binominal pattern, e.g. *a number of delegates (met to try and settle the differences)* /*this chain of events*
  7. NPs headed by a count noun in the singular that carries no plurality feature, but with a quantifying determiner that implies a plurality of units in the situation: *every bag*, *each student*. As noted by Gil (2005: 230), to a number of logicians, *Every student passed the exam* is logically equivalent to *Alice, Bill, John, Mary and Susan passed the exam*; some semantic frameworks, such as Boolean Semantics (Keenan & Faltz 1985), even propose to derive the interpretation of universal quantifiers from that of conjunctions (Gil 2005: 230).

Generic NPs headed by a count noun in the singular, as in *The stethoscope was invented in 1816*, are excluded from the study: the definite article abstracts the members into a single element, indicating "the class as represented by its typical specimen" (Quirk, Greenbaum, Leech & Svartvik 1985: 282). Rather, this is an example of a "kind-referring NP" (Carlson & Pelletier 1995: 2). There is no plurality feature, which explains why rephrasing through a plural NP may be awkward, or even impossible at times: *Stethoscopes were invented in 1816. Plural pronouns (e.g. *they*) will not be considered either: although they do refer to pluralities, they stand outside the scope of this book in that they have no lexical content.

As shown by the list above, considering semantic pluralities means cutting across the number distinction (there are singular as well as plural nouns and NPs), cutting across the count/non-count distinction (e.g. *committee* vs. *furniture*), and considering alternatively the lexical and the phrasal level. The common denominator

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8.   The case of *furniture* may seem more complex at first sight, as it allows for sentences such as *A chair is furniture*, which are about a single unit. We return to this point in Chapter 5.

to all the types cited above is the semantic /plurality/ feature, defined as the component of meaning 'more than one' (OED 2018; Lasersohn 1995: ix).[9] This, it is claimed, is crucial to understand the complexity of types of construal, allowing for a feature-based rather than grammar-based approach. Section 1.2 explores why.

1.2   Advantages of a semantic /plurality/ feature over the /number/ feature

A grammatical approach to plurality would focus on the number system, that is, for English, on the opposition between singular and plural. A semantic feature approach temporarily does away with the constraints of the number category and the specific issues associated with it. This temporary dissociation has several advantages.

First, it has been proved to yield new findings for other linguistic categories. In particular, the study of the /animacy/ feature, distinctly from the grammaticalised classification systems (gender, classifiers), has led to the discovery of the huge influence of the Animacy Hierarchy (1), which affects various aspects of morphology and grammar, such as case marking 'splits' within languages, number marking, perspective and empathy (for a historical overview and further examples, see Gardelle & Sorlin 2018).

(1)   The Animacy Hierarchy – Corbett (2000: 56)'s conflated version
       speaker > addressee >   3rd person > kin > human > animate > inanimate
       (1st pers.   (2nd person
       prons.)   pronouns)

The reason is that semantics and grammar focus on largely different issues. This holds for pluralities as well. Typologies of number systems deal with such issues as the syntax of number; nominal vs. verbal number;[10] the expression of number; number syncretism; whether number marking is compulsory or optional in a language; how many number categories there are in a given language; whether a given number concerns all the nouns; whether there is a quadral number; whether the distributive/collective opposition is a number; etc. (see Corbett 2000 for an overview and further references). Studies also analyse grammaticalised pragmatic

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9.   "Plurality is a simple notion – it just means 'more than one'." (Lasersohn 1995: ix)

10.   In English as in most languages, number is a nominal category, while the other elements in the clause only get number through agreement; accordingly, in *cows are grazing*, for instance, *cows* indicates a number of participants (more than one cow). Conversely, in some languages, such as Rapanui (Easter Island), number may be verbal, indicating the number of events, such as grazing more than once (Corbett 2000: 6).

functions of number, such as when a plural pronoun becomes the polite form to address a single individual. The meaning of number is explored, but here again, the area of concern for, say, the plural, is the study of its uses when it is a morpheme added to a base in discourse. For instance, Daniel and Moravcsik (2013) list the following main types of plurals: additive (construal of the plurality as a sum, as in English), similative (e.g. Telegu *puligili* 'tigers and such'), and associative (e.g. Hungarian *Pál-ék* 'Paul and company').

The study of grammatical number within a single language, as opposed to cross-linguistically, involves partly different considerations, but is again concerned with the expression of number, agreement, and secondarily semantics. For English, Huddleston and Pullum (2002: 334–353), for instance, deal primarily with number inflection, the identification of singular or plural nouns (e.g. variability for nouns in *-ics*), or agreement and selection – determiner selection within the noun phrase (*this* vs. *these*; incompatibility of a plural noun with *this*, *every* or *a*; etc.), pronoun-antecedent agreement, and subject-verb agreement (e.g. number transparent nouns, or respecification of certain kinds of plural nominals as singular, as in *a further two miles*).

Huddleston and Pullum (2002)'s grammar also addresses the count/mass distinction, and semantic reasons why some nouns are plural-only (e.g. bipartite objects, such as *scissors*). But due to the chiefly grammatical focus, these remarks cannot lead to an overall consideration of the expression of plurality. For instance, the authors note occasional singular uses of nouns that denote bipartite entities (e.g. *a flannel-lined jean*), or the fact that most non-count nouns are singular, or that a number of nouns with Latin plural endings (e.g. *data*, *insignia*) are reanalysed as singular by some English speakers. But because such remarks have to remain marginal, questions such as the following may not be addressed: if a singular reanalysis of *jeans* yields the form *jean*, what is the relationship between the inflectional plural of the number category and the plural ending of lexical plurals? Or for Latinate plural nouns (e.g. *data*), why is there a trend towards reanalysis as *non-count* singulars, even for nouns that denote pluralities of discrete entities (e.g. *memorabilia*), rather than *count* singulars (e.g. *a memorabilia / *memorabilias)? A semantic approach to the /plurality/ feature addresses these questions centrally.

Another advantage of considering plurality as a semantic feature, rather than focusing on the grammatical number system is that the study is not blinded by the semantic opacity entailed by grammaticalisation (e.g. Diewald 2002: 3–4). For instance, the grammatical category of tense does not just record time, that is, placing events on a time scale (the preterite does not always indicate the past), although it is its semantic basis; or in formal systems, gender is no longer semantically motivated for a majority of nouns (e.g. phonological criteria account for the gender of nearly 85% of French nouns, Tucker, Lambert & Rigault 1977). Temporarily

doing away with such opacity enables us to focus on other fundamentals, which is important because what gets grammaticalised in languages is 'the domains of experience which are important to cultures' (Romaine 2000: 29). It can be assumed that similarly, although the English number category originates in the fundamental distinction between 'one' and 'more than one', it has come to take on other values or structural constraints through grammaticalisation.[11] Moreover, /plurality/ being a strictly semantic feature, it may be denoted through other means than the plural number, as evidenced for instance by *furniture*.

In other words, an onomasiological approach to plurality, taking the semantic feature 'more than one' as a starting point, can bring about complementary findings because it can establish connections with other major fields of linguistic research outside the grammaticalised category of number, such as the count/mass distinction, individuation, meronymies and other lexical hierarchies. In so doing, it also puts the contribution of number in perspective.

Finally, semantic features have been proved to be just as worthy foci of study as grammatical features: they, too, are recognisable characteristics that are recurrent within and across languages (Corbett 2012: xiii; Fromkin, Rodman & Hyam 2014: 58). More generally, features have been "increasingly" established as an important object of research recently, because they "are our means of capturing what is consistent across entities within a language," as well as "across languages" (Corbett 2012: xiii). On this basis as well, a semantic approach to plurality is called for.

1.3   Why take collective nouns as a starting point?

1.3.1   Collective nouns as the problematic backbone of references to pluralities

In the English grammatical tradition, pluralities of entities have mainly been broached from two angles:

1. lexical plurals, which long confounded researchers: at first sight, there is so much variety that considering lexical plurals as a class of nouns is more or less equivalent to grouping together all the nouns that begin with an *f* (Acquaviva

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11. For decimal numbers below 1, the plural is found as well. When the last digit is higher than 1, as in *0.5 grams*, the plural may still be said to mean 'more than one': the *5* in *0.5*, for instance, selects five tenths within a set of nine tenths. But this analysis does not hold when the plural is used with *0.1* (e.g. *0.1 grams*). There, the plural seems to be the result of grammaticalisation (overgeneralisation of the number agreement rule for decimal numbers, extending plural agreement to *0.(0…)1*), which leads to opacification.

2008: 15). The semantic contribution of the plural, however, is now well es-
tablished, especially thanks to Wierzbicka (1988) and Acquaviva (2008). The
contours of the class are unproblematic as well, as they are based on formal
properties (lack of a singular base, e.g. *belongings*, or lack of a 'more than one'
interpretation of a singular base, e.g. *waters*, which does not mean 'more than
one water'). Lexical plurals therefore do not constitute a good starting point
for the study.

Some more secondary issues remain to be solved, such as why some Latin
plurals tend to be re-analysed as non-count, rather than count, singulars
(e.g. *memorabilia*), or why a lexical plural should be preferred over a singular
non-count noun (or the other way round) for neologisms; this volume will
seek to provide answers.

2. collective nouns, which in English have been identified as a class of nouns from
    the earliest grammatical tradition – Michael (1970: 302) finds them referred to
    in a dozen works before 1770, and fairly systematically since, either as "collec-
    tive nouns" or "nouns of multitude". Paradoxically, this category, unlike that of
    lexical plurals, is still problematic. Despite a long grammatical tradition and
    the use of meaning-based labels ("collective", "multitude"), the boundaries of
    the class are not actually known today. This makes collective nouns a very good
    starting point, all the more so as they are mentioned in all grammars and are
    familiar to the general public.

Moreover, in recent research, collective nouns have been regarded as a core from
which other linguistic types should be considered. It is through comparison with
uncontroversial collective nouns that non-counts such as *furniture* or *belongings*
have been studied (e.g. Joosten 2010; Lammert 2010; Gardelle 2017, 2018a), or that
some formal semanticists have refined the singularist approach (e.g. Link 1983;
Schwarzschild 1996).

Finally, the label "collective noun" makes use of the term "collective", whose
definition, as was noted above, is crucial to the whole description of references
to pluralities, and problematic in various fields of research. In its everyday use, it
is often equated with semantic plurality (reference to 'more than one'), but such
a very broad meaning makes it a poor tool for specialist use. English grammars
reflect this difficulty when they restrict the set of collective nouns to the nouns
that license hybrid agreement (syntactic agreement or semantic plural override),
never specifying that these may not be the only "collective nouns" in the language.

1.3.2 A long tradition of deceptively simple descriptions in grammars and dictionaries

Grammars and dictionaries over the centuries offer largely similar descriptions, giving the misleading impression that collective nouns form a straightforward, homogeneous category – so much so that in the 20th century, definitions become very brief in grammars, or disappear altogether. The aim of this section is to show that such oversimplification is the result of a strong bias towards humans in the descriptions of collective nouns; and that this bias does not just originate in the possibility of hybrid agreement with the corresponding collective nouns, but has much deeper roots.

As noted above, collective nouns have always been an established category in grammars of English, especially in relation to syntax (Michaels 1970: 301). Initially, they were called *nouns of multitude* (e.g. Johnson & Walker 1862; Brown 1869), especially in the 18th and 19th centuries (but still, for instance, in Garner 2000), sometimes in alternation with the synonymous *collective nouns* (e.g. Brown 1869; Garner 2000). Two periods can be roughly identified, though there are no clear-cut boundaries. Down to the 20th century, collective nouns are singled out because they are said to show a paradox between a singular form and a plural meaning. Here are a few representative examples:

(2) *M*. What is a Collective? – *S*. Tis a Noun of the singular Number but signifies *many*, as if they were *one*, as *People*, which, tho in the Singular Number, signifies *many Men*.   (Entick 1728: 6)

(3) Names which have the Ending of Singulars and Meaning of Plurals are called Collectives: as *an Army, Brace, Company*.   (Kirkby 1746: 65)

(4) The collective noun being a name which, even in the singular number "signifies *many*," the verb which agrees with it, can never properly be singular, unless the collection be taken literally as one aggregate, and not as "conveying the idea of plurality."   (Brown 1869: 584, US)

In the 20th and 21st centuries, English grammars gradually do away with the idea of a contradiction between form and meaning – Brown (1869) in (4) above may be seen as something of a precursor. The grammars either briefly indicate a double layer of conceptualisation (a single group, consisting of several members, although (6) below retains the old perspective, viz. the idea of a paradox between form and meaning), or do not give a definition at all (for instance in Huddleston & Pullum 2002). In either case, they focus on the alternation between syntactic and semantic agreement.[12] Here are some representative examples:

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12. Also termed respectively *grammatical* and *notional concord* (Quirk, Greenbaum, Leech & Svartvik 1972: 360, 1985: 757–758) or *simple agreement* and *plural override* (Huddleston &

(5) Words which at the same time are in one respect singulars as denoting units, in another respect plurals as denoting more than one thing or person.[13]

(Jespersen 1913: 72)

(6) In BrE, collective nouns, notionally plural but grammatically singular, obey notional concord in examples such as *The public are tired of demonstrations* […].[14] (Quirk, Greenbaum, Leech & Svartvik 1972: 360)

(7) Singular collective nouns refer to a group of people or animals or to institutions. They may be treated as either singular or plural. (Greenbaum 1996: 104)

(8) Collective nouns refer to groups of single entities. Typical examples are: *army*, *audience*, *board*, *committee*, *crew*, *family*, *jury*, *staff*, *team*. All these nouns behave like ordinary countable nouns, i.e. they vary in number and definiteness. […] Although collective nouns normally behave like ordinary countable nouns, they are marked by special patterns with respect to subject-verb concord (3.9.2.3) and co-referent pronouns (4.10.3). (Biber et al. 1999: 247)

The focus on hybrid agreement, as in (6), (7) or (8), is potentially misleading because the authors seem to imply that the category of collective nouns is restricted to those nouns that license it – that is, count nouns that denote groups of humans or, more rarely, of animals. Yet Greenbaum (1996), despite extract (7), notes elsewhere in his grammar (p. 456) that the suffixes *-ery* and *-ry* sometimes derive collective nouns for inanimates, such as *confectionery* or *cutlery*. Similarly, two pages after extract (8), Biber et al. (1999: 249) add "plants (e.g. *bouquet* and *clump*), or inanimate objects or entities (e.g. *batch* and *set*)" to the class of "collective nouns". Yet no grammar specifies the boundaries of the class.

Dictionaries propose very similar definitions, with a similar gradual shift in more recent sources (the concessive "though" of (9) or (10) disappears in (11) and (12)):

(9) A collective noun expresses a multitude, though itself be singular.

(Johnson & Walker 1828)

(10) COLLECTIVE […] 3. In grammar, expressing a number or multitude united; as a *collective* noun or name, which, though in the singular number itself, denotes more than one; as, *company*, *army*, *troop*, *assembly*. (Webster 1828)

Pullum 2002: 499–502). The present volume will not make a difference between *concord* and *agreement*; it will use *agreement* throughout.

13. Jespersen, though, reconsiders this initial definition later on in his grammar to include other terms such as plural *cattle* and *vermin*.

14. In Quirk, Greenbaum, Leech and Svartvik (1985: 758), plural construal is restricted to cases of plural agreement: "Singular collective nouns may be notionally plural. In BrE the verb may be either singular or plural. […] The choice between singular and plural verbs depends in BrE on whether the group is considered as a single undivided body, or as a collection of individuals."

(11)   A substantive which (in the singular) denotes a collection or number of indi-
viduals.   (OED 2018, entry *collective noun*)

(12)   A noun such as "team" or "flock" that refers to a group of people or things.
                                                          (Merriam-Webster 2018)

What can be seen from all these extracts is, right from the early grammars and dic-
tionaries, a bias towards nouns that license semantic override agreement, especially
those that denote humans: only these are given as examples, even in (12) (*team*,
flock, despite "people *or things*" in the definition). This is not just because hybrid
agreement, a grammatical characteristic, is of particular interest to a grammar:
the same holds for French, where semantic override agreement does not exist,[15]
so that the category of collective nouns, regularly mentioned in grammars, has a
strictly semantic basis.

   In France, grammars and dictionaries of French offer similar definitions, with
the same shift from a paradox between form and meaning (13) to the notion of
group, of set (14, 15). The only difference is that because there is no semantic over-
ride agreement, collective nouns are mentioned in typologies of types of nouns
(along with concrete vs. abstract, and so on), rather than in the chapter on the
number of nouns as in English. Here are a few representative examples from dic-
tionaries and grammars:

(13)   Terme de grammaire, qui au singulier désigne une multitude. ("Term of gram-
mar, which in the singular denotes a multitude").
               (Dictionnaire de l'Académie Française, 1694: 210, entry *nom collectif*)

(14)   les noms collectifs dont le singulier désigne une collection ou une collectivité
d'entités isolables (mais considérées globalement), dont la composition peut
être précisée par un complément du nom (*une foule de badauds, la colonne
de manifestants*). ("collective nouns, whose singular signifies a collection or a
collectivity of isolatable entities (but considered globally), whose composition
can be specified by a noun complement (*a crowd of onlookers*, *the column of
demonstrators*)")   (Riegel, Pellat & Rioul 1999: 171)

(15)   terme singulier représentant un ensemble d'individus: *peuple, foule, ensemble.*
("singular term representing a set of individuals: *people*, *crowd*, *set*")
                                                          (Grand Robert 2005–2017)

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15. Tristram (2014) shows that there is agreement variation in French as well, but only with phrases
such as *une foule de …* (cf. 'a host of'); agreement is just a question of which noun is taken as the
semantic head (*foule*, or the N2, in which case *une foule de* is interpreted as a quantifier). There is no
verbal hybrid agreement with nouns such as *comité* 'committee', for instance. Dubois and Dubois-
Charlier (1996: 132) call the nouns in these constructions "quantificational nouns" ("noms quantita-
tifs"). In these uses, they become what Huddleston and Pullum (2002) term "number transparent
nouns". There is no verbal hybrid agreement with nouns such as *comité* 'committee', for instance.

Where does this focus on groups of humans stem from? It may well be a legacy from grammars of Latin, the model language when the first vernacular grammars were written: a number of older grammars of French and English specify that Latin, too, had override semantic agreement for collective nouns that denote groups of humans (e.g. Delille 1851: 255):

> (16)   Avec les noms collectifs, les Latins avaient le choix du pluriel ou du singulier pour le verbe suivant; ils disaient indifféremment: *turba ruit* ou *turba ruunt*. ("With collective nouns, Latin people had a choice of the plural or the singular for the following verb; they said indifferently: *turba ruit* or *turba ruunt* [*the crowd rushes* or *the crowd rush*]")   (Delille 1851: 255)

The end result is that collective nouns were so much taken for granted that the boundaries of the class were not at issue until the late 20th century. The category was centred around humans, and had no reason not to be regarded as homogeneous.

1.3.3   A number of unsolved issues in recent studies

The late 20th and early 21st centuries have seen a relative surge of interest in collective nouns among researchers, especially for English and French. This has resulted in better knowledge of the category, but also in partly diverging conclusions as regards the boundaries of the category; the aim of this section is to identify the points of divergence – the following chapters provide more detailed accounts of arguments and findings.

Among specialists of English, the boundary issue has been of little interest to native English speakers, who have mostly focused on agreement. They have shown differences in agreement preferences for collective nouns that license plural override agreement, within and across varieties of English (see Chapter 2 for details and references). Among foreign linguists, three, to our knowledge, have specifically explored the boundaries of English collective nouns. In France, Arigne (1998, 2005a/b, 2006, 2010, 2011) argues for a broad definition of "collective" (any reference to a multiplicity of items, 2011: 61), which can apply to both singulars (whether count or non-count) and plurals (*cattle*, *people*, Arigne 1998: 59, 2010: 94), and to both nouns and noun phrases (such as *books* or *the rich*). Gardelle (2014, 2017, 2018a), on the other hand, argues against the inclusion of lexical plurals (e.g. *belongings*) and non-count singular nouns (e.g. *furniture*) among collective nouns, considering them instead as "aggregate nouns". These studies also suggest that not all count nouns that denote pluralities of units are collective; *breed*, for instance, forms a taxon/exemplar relation with the units (Gardelle 2014: 101). The present volume will consider this further. In the Netherlands, Joosten (2010), too, argues

strongly for a distinction between "collective nouns" (count, such as *committee* or *forest*) and "aggregate nouns" (non-count singular, such as *furniture*).

Among specialists of French, the lack of consensus is comparable. Lammert (2010), explicitly taking up the arguments put forward by Joosten (2010), argues that *furniture*-type nouns, like count nouns, should be labelled "collective", albeit of a different subtype. She rejects lexical plurals, on the basis that they show no paradox between form (singular) and meaning (plurality) – the question is, however, why such a paradox should be a prerequisite. Flaux and Van de Velde (2000: 59), conversely, reject non-count nouns, although they describe them as denoting "open collections"; it may seem rather counter-intuitive, perhaps, to deny nouns that denote "collections" the status of "collective" nouns. In an earlier study, Flaux (1999: 472n) specifies that this restriction to count nouns is "deliberately narrower" than in most studies because she wants a category that correlates form and meaning. Yet this could be regarded as a rather arbitrary choice, especially in light of the heterogeneity of the set of uncontroversial collective nouns.

Indeed, the heterogeneity of count collective nouns has been one of the findings of recent research (see Chapter 2). In a nutshell, first of all, they differ as to their agreement preferences. For instance, in Levin (2006)'s corpus from *The Independent*, *quartet* is found with plural agreement of the verb in over 50% of occurrences; *jury* takes singular agreement for the verb in over 80% of cases, but only in 44% of cases for the anaphoric pronoun; *orchestra* takes singular agreement in more than 80% of cases, both for the verb and the anaphoric pronouns. A second major difference concerns the degree of what Joosten (2001) and Joosten et al. (2007) call "permeability" between the collective whole and the members, that is, the capacity for an adjective that modifies a collective noun to apply to the members. For instance, a *young couple* implies young members, whereas a *young association* does not, so that *couple* is more permeable than *association*. A third cause for heterogeneity is the capacity for some collective nouns, but not others, to denote the members rather than the group (e.g. *two faculty*, *one clergy*). Gardelle (2016a) shows that even among those that have that capacity, there are variations in their degree of compatibility with numbers, or with singular reference (e.g. *one clergy* for one member of the clergy, but not **one gentry* for one member of the gentry).

Given this heterogeneity among the core members of the class of collective nouns, then, why not extend the class to singular non-count nouns, or even to lexical plurals? Obviously, a better understanding of the reasons for such heterogeneity, again against the background of references to pluralities of entities, will contribute to establish where the category of collective nouns should end.

1.3.4 Leading questions for this volume

Among the questions to which the present volume hopes to provide answers, are the following:

1. what is the grammar of collective nouns: are all collective nouns count, or are there non-count ones as well? Is the restriction to singular nouns relevant, or could it simply be a legacy from grammars of Latin? For instance, Jespersen (1913) considers *cattle*, a chiefly plural noun, to be collective; Lyons (1977: 315), too, mentions *cattle*, as well as *clergy*, specifying that they are "treated as plural".
2. which nouns of English are collective? The volume seeks to establish a typology.
3. which nouns of English are *prototypical* collective nouns? English grammars, from their focus on hybrid agreement, seem to suggest that they are count nouns that denote humans, such as *committee*. But Depraetere (2003: 95), the only linguist to explicitly ask the question, suggests otherwise. To her, all collective nouns carry the features [+morphologically singular] and [+animate] (this will have to be reconsidered, though), and the prototypical ones are those which "share as few characteristics as possible with other types of noncollective nouns"; ideally, therefore, they should have the features [−count (collective) noun], [+ plural verb only], and [−[unmarked count noun]] – an unmarked count noun is defined as a morphologically invariable noun, such as *sheep*; such nouns are rather common among noncollective nouns. As no English collective noun has all three features, she suggests a gradient of prototypicality, the top lines of which are given in Table 1.

Table 1. The top of the "Gradient of decreasingly less prototypical collectives" for Depraetere (2003: 96)

[+ plural verb only]	[−unmarked count noun]	[−count (collective) noun]	/
[+ plural verb only]	[+unmarked count noun]	[−count (collective) noun]	*cattle*
[+ plural verb only]	[−unmarked count noun]	[+count (collective) noun]	/
[+ plural verb only]	[+unmarked count noun]	[+count (collective) noun]	*people*
[…]			

Is *cattle*, then, the best example of a collective noun?

4. does hybrid agreement, which takes place at NP level, guarantee a collective noun at the head of that NP?
5. what is the relationship between NP and noun level? In particular, can there be collective *NPs* as well as collective *nouns*? Can an NP that is not headed by a collective noun be 'collective'?

6. more generally, and most importantly, where do collective nouns stand among the various ways of denoting pluralities of entities? Should 'collective' be a very broad term for 'more than one', or should it take a more restricted sense – in which case, what other labels should be used for other types of construal?

1.4   A preliminary list of pre-requisites for 'collective nouns'

The aim of this section is to specify a number of required features for collective nouns which can be identified at this early stage; the next chapters will determine whether more features are necessary.

1.4.1   A relation between 'units' and a 'collective whole'

The very first question is, what name should be given to what a collective noun denotes? Rather surprisingly perhaps, neither dictionaries nor the specialised literature offer a consensus term today.

'Collective' echoes 'collection', but *collection* is mostly used for inanimates (OED 2018). Many contemporary definitions, as was seen above, mention "groups", but the word has a human bias (without a complement and out of context, it brings humans to mind). The OED (2018) proposes "collection or number"; 'number', however, may not be used without an *of*-PP (*a committee is a number). Riegel, Pellat and Rioul (1999)'s French grammar includes "collectivities", but the word has a human bias. Specialised research has not come up with a single term either. Cruse (1986: 175)'s study of meronymies proposes not only "collectivities", but also "entities such as groups, classes and collections", which does away with the idea of a single umbrella term. Winston, Chaffin and Herrmann (1987), Iris, Litowitz and Evens (1988) and Lammert (2010) extend the sense of "collection" to include animates, which is possible, but perhaps particularly counter-intuitive for humans. Arigne (2010: 95, 95n), in an attempt to avoid 'group', proposes to reconsider the term 'collective (noun)', and tentatively suggests "noun that gathers multiple units" or "gathering noun" ("nom qui rassemble des unités multiples" / "nom rassembleur"). May an adequate term be 'a gathering of units', then?

The choice made here is rather to retain a connection between the label for the linguistic category ('collective nouns') and that for the referent; as a result, the term 'collective whole' will be used. The label has additional advantages. It makes no interference with a word used in everyday language (vs. *collection*); it makes explicit reference to the part/whole relation which, as 1.4.3 below will show, is inherent in

the denotation of collective nouns; and it does not necessarily imply bounding (the term 'unbounded whole' is used in research).

As for the members of a collective whole, the term 'entity' is fine, but to retain the same level of abstraction as 'whole', 'unit' will be used as well. 'Unit' emphasizes both the possibility of autonomous existence (a pre-requisite for a grouping operation) and the status of part of a greater whole: "An individual person, thing, or group regarded as single and complete; each of the (smallest) separate individuals or groups into which a complex whole may be analysed" (OED 2018). Winston, Chaffin and Herrmann (1987) and Iris, Litowitz and Evens (1988) use "member", which is also possible, but less felicitous because it introduces a human bias (e.g. ??*a star is a member of a constellation*).

1.4.2   A plurality resulting from a grouping operation

A collective noun (*herd* for instance) denotes a plurality obtained by grouping together a number of entities, and construed as such. This is the etymological sense of 'collective' and the feature shared by all senses of the word mentioned in the overview at the beginning of this chapter.

The notion of construal is essential. A *book*, for instance, is made up of a number of leaves and a cover, but it is not *construed* as a number of leaves brought together. Rather, it is viewed as a componentially complex entity: an object made up of bound pages and a cover, all of which are regarded as components.[16] The definition similarly excludes *(jigsaw) puzzle* or *kit (of parts)*: although a puzzle (or a kit) is made up of a plurality of pieces, it is not construed as grouping together *units*; rather, the whole is broken down into pieces, which have no existence except as part of a puzzle (/ kit), and the final puzzle (/ kit) is not regarded as a plurality. This notion of construal helps solve an objection put forward by Chelaru-Ionita & Bantas:

(17)   In fact, this semantic aspect of collectiveness or multitude may be just a point of speculation which, if pushed too far, may lead to unnecessary remarks, because there are numberless nouns which include a plurality of elements, and yet we would think it is absurd to consider the word *book* collective because it includes many pages, or the word *page* collective because it includes words, or *novel* because it includes chapters, episodes, etc.

(Chelaru-Ionita & Bantas 1981: 229)

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16.   *A few pages*, on the other hand, construes the pages as entities, whether they are loose or not; but *pages* is not a collective noun, as the plurality feature is added in discourse.

Moreover, the correct relation between the units that compose the whole, and the collective whole, is not one of "inclusion", as suggested in extract (17), but one of meronymy, from the Greek *meros*, 'part' and *onoma*, 'name'. It is also known as meronomy, partonomy, or part/whole relation. This is what the next subsection considers.

1.4.3   A specific type of part/whole relation

1.4.3.1   *Unprototypical meronymy*

As was seen above, a collective whole, as indeed any plurality of entities, has *units* as its parts, that is, elements viewed themselves as wholes, and which may exist autonomously, outside any plurality. For instance, not all *stars* are part of *constellations*. In that, the parts of collective wholes are not prototypical parts, and in consequence, the meronymic relation between the term for the unit and the term for the whole is not prototypical either.

A prototypical part, such as a *head* or an *arm* in relation to the *body*, is non arbitrary (contrary to a piece) and concrete, but unlike a unit, it is more structurally integrated to the whole. Moreover, the various parts of the whole are differentiated (Cruse 1986: 157, 175). The prototypical relation can be tested with the string *the parts of a Y include the X(s), the Z(s), etc.* (Cruse 1986: 175).

It is difficult to label the units of a collective whole *parts* (e.g. ??*the parts of a herd include the cows, the bulls, etc.*), and they are typically undifferentiated (e.g. the ?parts of a jury are all jurors). Yet they are parts in a broad sense of the word: the units make up the collective whole.

From the same general part/whole relation, Cruse (1986: 173–177) identifies other types of non-prototypical meronymies, such as part/whole relations that involve non-concrete entities (*France/Europe*), or the relations constituent/material (*alcohol/wine*), ingredient/material (*flour/dough*) and particle/substance (*grain/sand*).

1.4.3.2   *Collective wholes distinguished from particulate masses*

The particle/substance relation (*grain/sand*) is of particular interest for the present study because technically speaking, particles are discrete entities; other examples are *grain/salt*, *blade/grass*, *flake/snow* or *drop/rain*. But the parts are not construed as units. Rain (and similarly, snow) is no longer divided into flakes or drops once it has reached the ground. Grains (of sand, salt, rice) and blades (of grass) have more permanence, but the particles are not usually significant on their own, even though it is possible to isolate and count them (e.g. *I found two grains of rice under the table*). Consequently, sand, salt, rice or grass are not construed as 'more than one

grain/blade considered together'; the particles lack autonomy, do not "achieve the conceptual and grammatical status of individual objects" (Wierzbicka 1988: 523). For this reason, *salt*, *rice*, and so on do not denote pluralities of entities; they denote a different form of non-simplex whole, called "particulate mass" or "particulate substance" in linguistics (e.g. Langacker 2008: 140) and in chemistry (e.g. Kendall 2004: 181). Goddard (2010: 140) calls them more specifically "particulate substances with named minimal units", as opposed to the reality denoted by *flour* or *powder*.

1.4.3.3 *Meronymy distinguished from taxonomy, despite the shared notion of 'members'*

Meronymy must be distinguished from another hierarchical form of partitioning which, at first sight, may seem quite close: taxonomy. While meronymy consists of a division into parts, taxonomy consists of a division into kinds, into classes – taxonomy is itself a subtype of hyperonymy, which holds for any relation of inclusion, not just a 'kind' relation. Both wholes and classes have *members*, but meronymies and taxonomies differ in a number of ways (Tversky 1990: 334). The nature of their components is different ("parts" vs. "kinds"). Moreover, taxonomies trigger property inferences: if fruit is considered to be sweet, then it will be inferred from a new exemplar of fruit that it is sweet. This is not the case with part/whole relations: for instance, a car may be pretty, but this quality is not transferred to its parts (e.g. its pistons) (Tversky 1990: 341). In other words, in a prototypical meronymy, the property ascribed to the whole is not usually ascribed to its parts – a phenomenon which, as will be seen, is important to understand collective nouns. Rather, meronymies trigger functional inferences, based on appearance: parts that look different (e.g. a piston and a wheel) tend to be construed as having different functions with regards to the whole. Finally, meronymies and taxonomies correspond to different, though complementary, modes of investigation (Tversky 1990: 343). In particular, meronymies start from the whole and consider subcomponents in order to define the relations between them, whereas taxonomies are more of a bottom-up investigation, looking at the features shared by a number of instances to establish defining features and variability. A given category might be divided into either parts or kinds, but Tversky (1990) shows that for superordinate categories, such as *furniture*, division into kinds is easier than division into parts – probably because it is difficult to identify common parts for entities of different kinds. The distinctions between meronymy, taxonymy and non-taxonomic hyperonymy will be considered further in § 5.3.2.

1.4.4 A /plurality/ feature at lexical level – from whole sense to facet of meaning

A collective noun, as the word 'noun' indicates, denotes a plurality of entities at lexical level, not just in context: the grouping operation implies internal plurality, in the Guillaumian sense given above. Not all internal plurals are eligible to the status of collective nouns: they have to denote a plurality of *units*, which excludes words such as *nuptials* or *glasses*.

Biber et al. (1999: 248) draw a further distinction between "collective nouns" and "collective expressions"; examples of the latter are *the clergy* or *the Aristocracy*, which they do not regard as *the + collective noun*, on the grounds that the nouns are typically used with *the* and only occur in the singular. The present study takes a different stand: *clergy* and *aristocracy* denote a plurality of entities in their lexical material, and as such, should not be automatically excluded from the class of collective nouns. For instance, the OED (2018) defines *clergy* as "the clerical order; the *body* of men set apart by ordination for religious service in the Christian church" (italics added). Moreover, as noted by Huddleston and Pullum (2002: 503), the prevalence of *the* and the singular is a matter of socio-cultural consideration, not grammar. The indefinite article, or the plural, are possible if the context is right, as in: *a clergy which would be adequate to the herculean task confronting it* (1983, Google Books) / *in misguided efforts to maintain themselves and their particular religious cultures, the <u>clergies</u> of the various religions became persecutors, or at least opponents, of other religious groups* (2015, Google Books).

Finally, the /plurality/ feature may be part and parcel of the whole meaning of the noun (collective-only nouns), or be found in just one sense, or in one facet of its meaning. This will be studied in further detail in Chapter 3, but in a nutshell, an example of a noun that is not collective-only is *organisation.* Like many deverbal nouns, it is polysemous. Its original meaning is the nominalised event (the act or process of organising something); it is only the derived concrete sense (denoting the participants in the event) that is collective. As for the notion of collective facet of meaning, it concerns nouns which it is difficult to regard as polysemous, such as *forest*: a "facet" is "a discrete component of a single sense" (Cruse 1995: 44). *Forest* is commonly given as an example of a collective noun in French ('forêt'), yet it is not collective in a sentence such as *The whole floor of the forest is carpeted with wild strawberries* (*The whole floor of the trees/of the group of trees is carpeted …).

1.5   Outline of the book

So far, three defining criteria of collective nouns have been made out:

1. the nouns denote a plurality composed of entities (of 'units'), which is the result of a grouping operation;
2. there is a part/whole relation between the units and the whole;
3. the /plurality/ feature exists at lexical level, at least in one sense, or possibly one facet, of the meaning of the noun.

At this initial stage, there are no grounds for restricting the class of collective nouns to count nouns, or even to morphologically singular nouns.

In order to refine the definition and establish the boundaries of the class of collective nouns, and more generally to explore the construals associated with the various linguistic means of denoting pluralities of entities, the volume will first investigate the nature of a characteristic that is put forward in all grammars of English: hybrid agreement (Chapter 2). Why does it occur? What are the constraints, what parameters favour semantic agreement? This will lead to a study of other nouns that have a count feature (Chapter 3), in order to see whether the construal of the plurality differs from that of nouns that license hybrid agreement – in other words, whether they should be included among the class of collective nouns as well. The study will then set these nouns against NPs that acquire their /plurality/ feature in discourse – through the morphosyntactic plural, conjoined NPs, binominal NPs (such as *a chain of [events]*) or a scanning quantifier such as *every* (Chapter 4). The aim is to understand whether a context-acquired /plurality/ feature leads to different modes of construal from lexical-level plurality. This will in turn provide the necessary background to consider nouns with a /non-count/ feature, whether singular-only (Chapter 5) or plural-only (Chapter 6). Thus the study will gradually build towards a model which I will call the Scale of Unit Integration for English, which will show that the variety of linguistic means to denote pluralities of units is organised in a very consistent gradient of construals. The Scale will provide labels for each type of construal. In addition, each chapter proposes a tentative typology, which could be of use in further research and for lexical databases in natural language processing.

Hybrid agreement
Motivations, nature and constraints

Hybrid agreement occurs for collective nouns when the NP that they head licenses both syntactic agreement (the singular, for a head noun in the singular) and override plural agreement (the verb or the anaphoric pronoun is in the plural although the subject head noun is in the singular). Typical examples are the following:

(1)   a.   The audience <u>was</u> invited to turn up early and picnic on the grounds.
                                                    (c. 1985–1994, BYU-BNC)
      b.   The audience <u>were</u> in their seats for the first of the two evening performances.   (1990, BYU-BNC)
      c.   Our research shows that the audience <u>wants their</u> news to be there when they want it.   (c. 1985–1994, BYU-BNC)
      d.   I think the council <u>have</u> shot <u>itself</u> in the foot […].
                                          (ICE-GB, from Depraetere 2003: 116) (spoken)

As noted in Chapter 1, the possibility of hybrid agreement for nouns such as *audience* or *council* (which denote groups of humans), or *herd* (which denotes a plurality of animals), is a well-established fact: it is even the focus of grammars of English, which typically address the issue of collective nouns in the chapter on the number of nouns.

What has not been explored, however, is whether this grammatical property should be grounds for a restriction of the class of collective nouns to the set of nouns that have it. The aim of this chapter is therefore to answer this question, along with the intermediary questions that it entails: why does hybrid agreement exist at all? Why isn't it licensed for inanimates? What relation does it bear to the construal of the pluralities: does it have a strictly semantic motivation, or is it constrained by other types of factors?

After an overview of the boundary issue in the literature (hybrid agreement is regarded as a potentially defining feature of collective nouns in form-based, as opposed to meaning-based, approaches), the study seeks new arguments to settle the question. Section 2.2 considers hybrid agreement as a formal property: focusing on its nature, and comparing it in particular with hybrid agreement for gender, it strongly argues against the status of defining feature on formal grounds. Section 2.3

then considers hybrid agreement from a semantic point of view, as a revelator of construal. It shows that these nouns are indeed 'collective', in that hybrid agreement fundamentally involves a double layer of conceptualisation; but that actual number assignment in context is opacified by at least four factors, which are examined in turn – such as differences in the behaviour of individual nouns or cross-regional differences. Some of these factors are well-established, but the study points out some oversimplifications, and the conclusions of some existing studies are partly challenged and re-analysed. These constraints and preferences make for a much more complex picture than the semantic explanation given in many non-specialist works; from this fuller picture, which to date had never been attempted, § 2.4 draws a number of theoretical conclusions for the boundaries of the class of collective nouns.

2.1   The boundary issue: Hybrid agreement as a defining feature of collective nouns?

A number of statements in grammars and specialist studies may lead the uninitiated reader to conclude that to their authors, the class of English collective nouns is restricted to the set of nouns that license hybrid agreement. For instance:

(2)   Both foreign learners and native users of English are faced with the problem of how to treat collective nouns, since there is a choice between singular and plural concord marks.   (Levin 1999: 21, first sentence of the introduction)

(3)   Singular collective nouns refer to a group of people or animals or to institutions. They may be treated as either singular or plural.   (Greenbaum 1996: 104)

Joosten (2010: 32) logically concludes that "[i]n the Anglo-Saxon tradition […] it is customary to define collective nouns fairly strictly, on the (primarily) syntactic basis of variable concord." Statements such as (2) or (3), however, may be convenient shortcuts just as much as statements about the boundaries of the class of collective nouns. As noted in Chapter 1, despite extract (3), Greenbaum includes *confectionery* and *cutlery* among collective nouns later on in his grammar (1996: 456).

The more explicit literature exhibits two different stands:

1.   a form-based approach – but with hesitations: along the lines of (2) and (3), "collective nouns" are treated as the sole set of nouns that license hybrid agreement, but it is acknowledged that a "notional definition" (Corbett 2000: 188) would include inanimates such as *forest* or *wood* (in the sense 'group of trees'), as they, too, denote "a collection of individuals". One of the most explicit illustrations of this approach is found in Depraetere (2003: 86–87)'s paper on verbal agreement with collective nouns:

(4)   Let us use the following temporary working definition as a starting point: a collective noun is a morphologically singular noun with multiple reference that is compatible with a plural verb. This definition involves a semantic as well as a formal component. […] If the concord requirement of the definition is left out, *train* (a unity of wagons), *forest* (a set of trees), and *luggage* (a collection of suitcases) are to be classified as collective nouns as well. […] Kruisinga (1932, II (2): 23) considers *forest*, *furniture*, and *fruit* as collective nouns. The latter observations show that if the animacy parameter is not taken into consideration, the class of nouns covered by *collectives* becomes considerably larger.

The necessary *semantic* requirement of a *collective* as it will be used in this article is that it should have multiple animate (inclusive or generic) reference.

(Depraetere 2003: 86–87)

The potential drawback of such a stand is that it proposes two very different definitions of collective nouns (form-based vs. notional), which is not satisfactory for a metalinguistic category.

2.   a meaning-based approach, which explicitly considers collective nouns to be a broader class: it therefore seeks to give a more specific name to the subset of nouns that license hybrid agreement. Finding such a name is a source of difficulty, though, and there is no consensus to date. Nixon (1972) proposes "corporate nouns", which however is meant only for pluralities of humans (excluding nouns such as *herd*). "*Team* nouns" (Lass 1987: 147) and "*committee* nouns" (Corbett 2006: 211) have also been put forward; they still foreground humans, although animals are not excluded. Den Dikken (2001: 21) uses the term "pluringulars," but specifically for "collective noun phrases which trigger plural agreement on the finite verb", rather than for nouns that license hybrid agreement. The present volume will propose the label "animate count collective nouns".

In conclusion, although the existing literature shows divergences, even proponents of a form-based approach (or at least some of them) do not reject the possibility of broader boundaries for the class of collective nouns. Section 2.2 now looks into the nature of hybrid agreement, which, it is claimed, provides an argument against a narrow (form-based) approach.

2.2   The nature of hybrid agreement as an argument against the status of defining feature

Agreement is defined by Steele (1978: 610) as "commonly refer[ring] to some systematic covariance between a semantic or formal property of one element and a formal property of another." The relation is asymmetrical: the former element is a controller, the source of agreement, while the latter is a target, which agrees with the controller. Canonical controllers are "consistent" ones: the properties of the target match those of the controller (Corbett 2006: 11). Hybrid agreement is non-canonical: it occurs when the controller (called "hybrid controller" by Corbett) licenses a mismatch between the syntactic features of the controller and that of at least some of its targets. Hybrid agreement is not restricted to collective nouns; it is also found in gender systems, for example in English, when an NP headed by *ship* may trigger either *it* or *she* in the anaphoric pronoun (Corbett 1991: 12).

2.2.1   Description of hybrid agreement with animate count collective nouns

As noted above, for animate count collective nouns, hybrid agreement refers to the possibility of singular or plural agreement of the verb (*the committee has/have …*) and/or of the anaphoric pronoun (*the committee … it/ they …*).

Corbett (2000, 2006) suggests a collective feature at work; in that sense, it is the *noun* that licenses hybrid agreement, though indirectly since a verb or a pronoun agrees with a whole NP – § 3.1.4 shows that some NPs that license hybrid agreement are not headed by collective nouns, though the semantics of the noun is also at work. The collective feature is not a number feature, as are the singular or the plural. First, when collectives and distributives are part of the grammar of languages, they can sometimes co-occur with the basic number values (usually the plural and the dual for collectives, and the plural for distributives) (Corbett 2000: 120). In other words, collective markers add further specification, but do not indicate number proper. Secondly, in English, as will be seen in Chapter 3, the likelihood of plural agreement varies from one noun to another (e.g. *team* is more likely to trigger plural agreement than *government*); a number feature does not allow such variability (Corbett 2006: 159).

Hybrid agreement with collective nouns involves a double level of agreement: it is not licensed within the noun phrase (*these committee), but only outside the phrase.[1] Beyond this, the exact nature of hybrid agreement with animate

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1.   Some nouns do license plural agreement within the NP (e.g. *these clergy*), but as will be seen in § 4.1.3, these are no longer collective senses of the nouns.

count collective nouns is a matter of debate. Existing research proposes at least three possible analyses: derivational approaches, constraint-based approaches, and index-based approaches. This section focuses on one of them, Kim (2004)'s index-concord approach, in order to show how agreement might be described.

To Kim (2004), the first level of agreement is DP-internal,[2] and of a strictly morphosyntactic nature – that is, based strictly on the syntactic properties of the noun; this level explains why *these committee is impossible. The other level is DP-external and, following the analyses of Pollard and Sag (1994), is of an index-based nature. Agreement, in this view, is not regarded as the transfer of a bundle of features, as in the derivational approach, but as a system of constraints requiring token identities. With index agreement, the index value of the noun (including the number feature) is anchored to an entity, and it is with the features associated with that entity that the corresponding features of the agreement target agree (Kim 2004: 1109). For instance, in *The family has suffered the anguish of repossession*, the index of *family* contains a singular number feature, whereas in *The family are absolutely devastated*, it contains a plural feature. Hence the following description for semantic plural agreement, based on Head-Driven Phrase Structure Grammar (HPSG):

(5)   *The family are absolutely devastated.*   (Kim 2004)

$$
\begin{bmatrix}
\text{(family)} \\
\text{HEAD} \begin{bmatrix} \textit{noun} \\ \text{AGR} \; [\; \text{NUM} \quad \textit{sing} \;] \end{bmatrix} \\
\text{CONT | INDEX} \; \boxed{1}[\; \text{NUM} \quad \textit{pl} \;]
\end{bmatrix}
$$

Similarly, outside the field of collective nouns, *pounds* in *Five pounds is a lot of money* is morphologically plural (that is, its lexical entry contains the feature 'plural'), selecting a plural determiner (*five*); when it is "anchored to the group as a whole", that is, conceptualised as referring to a single measure, its index value is singular.

Index agreement is not just free semantic agreement; it also abides by syntactic constraints. To Kim (2004), one matching condition between a verb and a reflexive pronoun (which is a bound pronoun) is that they should have the same number features (Kim 2004): *the faculty <u>are voting</u> *<u>itself</u> a raise* – though this condition may be too extreme, as pointed out by Joe Salmons (personal communication, 2019): *the faculty <u>is voting</u> <u>themselves</u> a raise* is acceptable. Another example is existential constructions: although the collective nouns are in (semantic) subject position,

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2.   The present volume uses "noun phrase" (NP), but "DP" (determiner phrase) is retained here from the generative approach of Kim (2004).

they do not license a plural verb ahead of them (*there are an audience holding a meeting in the room) (Den Dikken 2001: 19).

More generally, hybrid agreement must also abide by the constraints of the universal Agreement Hierarchy, a cross-linguistic pattern which concerns not only number, but also other types of agreement such as gender. It predicts and constrains the likelihood of semantic agreement for various types of agreement targets:

(6) The Agreement Hierarchy for controllers that license alternative agreement
      forms   (Corbett 2000: 190, reproduced from Corbett 1979: 204)
      attributive < predicate < relative pronoun < personal pronoun
      […] The Agreement Hierarchy constrains possible agreement patterns as follows:

   For any controller that permits alternative agreements, as we move rightwards along the Agreement Hierarchy, the likelihood of agreement with greater semantic justification will increase monotonically (that is, with no intervening decrease).

   […] Thus semantic agreement is as likely or more likely in the predicate as compared with attributive position; and then semantic agreement is as likely or more likely in the relative pronoun as in the predicate, and so on.

The reason why the hierarchy is consistent across languages is that as one moves rightwards, the syntactic links with the controller get weaker, so that the agreement domains become less and less canonical (Corbett 2006: 95).

English animate collective nouns fully map onto the Agreement Hierarchy:

1. hybrid agreement is only possible outside the NP (*these committee), that is, in the predicate (*the jury is/are …*) and relative or personal pronouns (*which/who*, *it/they*).
2. mixed agreement (cf. (1c) above: *the audience wants their …*) typically corresponds to a *singular* verb (predicate position) and a *plural* personal pronoun (further to the right in the Hierarchy), whatever the variety of English (Hundt 2009a: 216).
3. in a corpus of British newspapers (100,000 words), Nixon (1972) finds that plural agreement is more common in the anaphoric pronoun (27.4% of 106 occurrences) than in the verb (12.2% of 181 occurrences) – see below for further examples of similar findings.
4. among anaphoric pronouns, Nixon (1972) finds that semantic agreement is more likely if the pronoun is more distant from its antecedent (distance is measured in the number of words) (Corbett 2000: 217).

These characteristics of hybrid agreement, it is claimed here, are not grounds for restricting the class of collective nouns to the nouns that license it. This is what § 2.2.2 addresses now, based on a comparison with hybrid agreement in gender systems.

2.2.2 The argument of hybrid agreement in gender systems

The description of hybrid number agreement meets exactly that of hybrid gender agreement, and this has major theoretical consequences.

Let's take two typical instances of hybrid gender agreement. In the formal gender system of German, *Mädchen* ('girl') is grammatically neuter; as such, it can trigger neuter agreement in all its targets, but semantic override may trigger the feminine in the personal pronoun (*sie*), though not in other (e.g. NP-internal) agreement targets (Corbett 1991: 183). Or in the semantic system of English, the noun *ship* should trigger neuter agreement because it denotes an inanimate, but conventions make the feminine pronoun *she* possible, though not normally the relative *who*. In other words, in hybrid agreement, the nouns "neither take the agreements of one consistent agreement pattern nor belong to two or more genders" (Corbett 1991: 183). They fully follow one consistent agreement pattern, and in addition, license some characteristics of another agreement pattern. For that reason, in gender systems, hybrid nouns do not constitute a distinct gender class. German or English only have three classes, based on "consistent agreement patterns" (Corbett 1991: 183). Hybrid agreement only concerns a handful of nouns, and in formal gender systems, it occurs only for humans (cf. German *Mädchen*).

The conclusion for hybrid agreement with collective nouns must be the same: it does not by itself justify the creation of a separate number class, or, it is argued, of a specific type of noun. Rather, the possibility of semantic override agreement is superimposed on the basic agreement pattern, typically because the construal of the referent is in conflict with the grammatical assignment rule. This, again, is available only for animates, and common only for humans. This is no coincidence: hybrid agreement for both gender and number is governed by two universal hierarchies: a semantic one, the Animacy Hierarchy, and a formal one, the Agreement Hierarchy. The next two subsections examine their influence in turn.

2.2.3 Hybrid agreement as a superimposed effect
of the universal Animacy Hierarchy

It is a well-known fact that in English, hybrid agreement for collective nouns is common for pluralities of humans (e.g. *committee*), rarer for animals (e.g. *herd*), and impossible for inanimates (e.g. *the forest are …). This is attested as far back as the 11th century (Marckwardt 1958), and not specific to English: it is found for instance in Spanish, Old Church Slavonic, or in non-Indo-European languages such as Paumari, an Aruan language of Brazil (Nuessel 1984; Huntley 1989: 24–25; Chapman & Derbyshire 1991: 287–288; Corbett 2000: 191). This specificity of semantic override agreement is also found marginally in French: although hybrid

agreement does not exist as such for collective nouns like *comité*/*commission* ('committee') or *troupeau* ('herd'), plural anaphoric pronouns are found marginally in left dislocations in informal registers, for some collective nouns that denote humans. There, plural pronouns are difficult for animals, and impossible for inanimates. For instance:

(7)   a.   (*Le Parisien*, quote from a candidate after a reality TV show, 2013)[3] Le jury, ils prennent le melon. ('The jury, they are getting a big head.')
       b.   ??Le troupeau, ils sont tous malades. ('The herd, they are all sick.')
       c.   *Le bouquet, elles sont belles. ('The bouquet, they *[feminine, for 'les fleurs', 'the flowers']* are beautiful.')

These facts are a direct effect of the universal Animacy Hierarchy ((8) below): across languages, entities at the top of the hierarchy tend to get special treatment in some domains of grammar, especially number, gender and ergativity (for an overview, see for instance Gardelle & Sorlin 2018). Despite its name, the Animacy Hierarchy does not just distinguish between animates and inanimates, but gives pride of place to humans within animates.

(8)   The Animacy Hierarchy – Croft's version.   (Croft 2003: 130)
       human > animate > inanimate

2.2.4 Consequence: The singular as the default agreement pattern

The singular pattern is the only one that is followed fully by animate count collective nouns: NP-internal agreement imposes the singular (*these committee). Plural agreement is an override of this default pattern.

The status of default agreement pattern of the singular is confirmed by another two facts (Den Dikken 2001: 19, 29). First, as noted above, collective nouns do not license a plural verb ahead of them in (semantic) subject position (*there are an audience holding a meeting in the room). Secondly, collective nouns cannot trigger plural agreement by a phenomenon called "attraction". "Agreement attraction" is a frequent error in spoken (and sometimes written) English, whereby instead of agreeing in the singular with the whole of a complex subject noun phrase, the verb is "attracted" by the plural subconstituent of the subject which is closest to it (as in 9b) (Bock & Eberhard 1993: 59; Den Dikken 2001: 29).

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3.   https://www.dailymotion.com/video/x140qki (last accessed July 2019)

(9) (Examples from Den Dikken 2001)
    a. The diverse background/education level of the committee *are to remain a secret.
    b. The identity of the participants ?are to remain a secret.

In conclusion, hybrid agreement as a formal feature is not sufficient to isolate animate count collective nouns as denoting a specific kind of plurality. What remains to be seen is whether the *type of construal* that hybrid agreement reflects is specific to that set. If it is, then animate count collective nouns might be the only 'collective' nouns; if it is not, then the class of 'collective nouns' is broader. Section 2.3 therefore considers the construal that underlies hybrid agreement, together with the partial opacity imposed by a number of non-semantic parameters. This will be later compared, in the next chapter, with other count nouns that denote pluralities of entities.

2.3 Construal with hybrid agreement: Motivation and factors of opacification

2.3.1 Fundamental motivation: A double layer of conceptualisation

Hybrid agreement reflects a well-known double layer of conceptualisation: in the singular, the anaphoric pronoun is *it*, which (often at least) implies an inanimate component in the construal – a group, a collective whole. With plural agreement, the focus is on the individual members. Hybrid agreement thus leads to the following glosses:

(10) a. a collective noun that licenses hybrid agreement denotes a *single whole* composed of *several units*.
    b. tests: *An X is/can be composed of units Ys; a unit Y can be part of an X.*

The double layer of conceptualisation has three major consequences. First, because the conceptualisation of the whole may differ from the conceptualisation of the units, the noun that denotes the whole does not normally denote the nature of the units – a *jury* is not composed of *juries*, or of *jury*. In French, this heterogeneity between parts and whole holds for all collective nouns, as noted in the literature (e.g. Lammert 2010: 94); in English, a handful of nouns have the capacity to name members if they lose their /count/ feature. For instance, a *crew* may be said to be composed of *crew*. The study will show that such uninflected plurals, however, are the result of a specific coercion process, and that in that use, they no longer have collective status (see § 4.1.3).

A second consequence of the double layer of conceptualisation is that with singular agreement, the collective whole has its own conceptualisation: it may be ascribed qualities that do not apply to the members. A *big committee*, for instance, refers to the size of the group, not to that of the individual members. This is what Gil (1996) calls "non-additivity": the collective whole is more than the sum of its members. Non-additivity is lost with plural agreement, due to the focus on the units: *the jury are big* has to refer to the size of the members.

Thirdly, with singular agreement, the collective noun does not seem to license a singular anaphoric possessive that introduces parts of the units, such as *The audience … Its hands …, when the anaphoric expression is in subject position (vs. *the audience was clapping its hands and shouting*, where clause-internal agreement favours syntactic agreement, especially in American English). This is because hands are parts of parts, since the members of the audience are themselves parts of the collective whole; as such, they relate to a different functional domain from the whole. This can be compared to Cruse (1986: 166)'s example of door handles: as a handle is defined in relation to the functional domain of a door, not to that of a house in general, *the handles of the doors of the house* may not be shortened to *the handles of the house. This is evidence that with singular agreement, collective wholes (rather than their units) are regarded as the level of reference in the construal of the plurality. In this, animate count collective nouns differ from plural NPs: *The tourists … Their hands …* is perfectly acceptable, because in the construal of the plurality, the level of reference is the unit *tourist*, which is reduplicated (Gardelle 2018b). Chapter 4 considers this in more detail. Coming back to animate count collective nouns, when there is plural agreement, the constraint is once again lost, because the construal no longer involves a double layer: *The audience were … Their hands … .*

Underlying semantic motivation, however, should be distinguished from actual assignment principles: several parameters cause a measure of opacity in number assignment. As a result, fully semantic accounts of hybrid agreement, as are often found in non-specialist treatments of collective nouns (such as (11) below), are oversimplifications.

(11)   When the collective noun refers to a group that is acting as a whole, it takes a singular verb. When the group's members act individually, the collective noun takes a plural verb.   (Teacher Created Materials 2006: 11, United States)

The remainder of this section seeks to identify the parameters that cause opacity, to see how they interact with the semantic foundations.

2.3.2 Opacification factor 1: The status of default number of the singular

As shown in § 2.2.2, singular and plural agreement are asymmetrical, the singular being the default pattern, and the plural a case of semantic override. As a result, rather than the account given in extract (11) above, it should be said that while the plural does foreground the individuals that compose the whole, the singular may indicate either that the collective whole is viewed primarily as one group (for instance, *the committee consist of … would be impossible for semantic reasons), or just that the speaker selects syntactic agreement (as noted for instance in Huddleston & Pullum 2002: 502).

   This explains why, as shown by recent corpus-based research, singular agreement may be found despite predicates that denote individual feelings or diverging reactions within the group:

(12)   The family <u>was</u> shocked and distressed at the sentence.
                          (Depraetere 2003: 119, British English)

(13)   It is clear that the government <u>has</u> not been united in its struggle against the Khmer Rouge.   (Depraetere 2003: 119, British English)

Even references to bodily parts do not guarantee plural agreement, at least in metaphorical uses:

(14)   But his audience <u>was</u> all eyes and ears as he rattled off the wisecracks.
                          (Depraetere 2003: 118, British English)

The asymmetrical status of singular and plural probably also explains why shifts in number may occur within the same clause, as mentioned in extracts (1c) and (1d) at the beginning of the chapter (*the audience wants <u>their</u> news* and *the council <u>have</u> shot <u>itself</u> in the foot*). It cannot be said that the construal of the group has evolved within the same clause, as a clause is the minimal syntactic unit to describe an event. Rather, (1c) (*wants their news*) is most probably an effect of the Agreement Hierarchy, with semantic agreement in the anaphoric pronoun only; and in (1d) (*have shot itself*), which is extremely rare because it goes against the Agreement Hierarchy (I was actually unable to find another example), the speaker could be reinstating a singular pronoun because of an interference with the idiom *shoot oneself in the foot*. A Google N-gram Viewer (September 2018) based on Google Books does suggest that at least for some speakers, *shoot oneself in the foot* is fossilised, with *foot* in the singular: the string *shooting themselves in the foot* is about 50 times more frequent than *shooting themselves in the feet* (which can therefore be analysed as a case of de-fossilisation of the end of the idiom to reinstate the rule of plural agreement when there are several 'owners').

2.3.3 Opacification factor 2: Differences in the behaviour of individual nouns

As could be expected with a singular default number, Biber et al. (1999: 188) con-
clude from the LSWE corpus (Longman Spoken and Written English corpus) that
"in actual use […] [m]ost collective nouns prefer singular concord". This is con-
firmed by Depraetere (2003: 112)'s analysis of the Collins Cobuild and ICE-GB
corpora: only a handful of nouns, such as *crowd*, seem to favour the plural.

A major finding of recent research, however, is that within a given variety of
English, individual collective nouns do not behave homogeneously with regards to
hybrid agreement – so much so that a number of linguists suggest that preferences
for individual nouns might be the main parameter for the selection of the singular
or the plural (Fries 1981; Hundt 1998; Levin 1999, 2006; Depraetere 2003).

This idea that individual nouns show different preferences was suggested in
Poutsma's grammar as early as 1914 (Poutsma 1914: 283), but it was rediscovered
only recently, and confirmed by quantitative analyses. The question of course is
whether this heterogeneity is the result of differences in construal in context (focus
on the collective whole vs. on the units); as the following paragraphs are going to
show, this is a possibility, but there is no obvious evidence. Rather, there may be
conventionalised, or at least recurring, construal preferences associated with some
of the nouns.

Table 2 summarizes the differences noted in Biber et al. (1999), Depraetere
(2003) and Levin (2001, 2006). Biber et al.'s LSWE corpus contains slightly over 40
million words, taken from conversation (British English), news (British English),
fiction / academic prose (American and British English), supplementary samples
for two additional registers (non-conversational speech and general prose), as well
as American English texts for dialect comparison (conversation, news) – for fur-
ther detail, see Biber et al. (1999: 25). The data in Depraetere (2003) are collected
from ICE-GB and the British sections of the Collins Cobuild corpus. Levin (2001)
studies 26 common collective nouns in the written press (issues of the American
New York Times and the British *Independent*) and spoken language (Longman
Spoken American Corpus, LSAC, 5 million words; and the spoken section of the
British National Corpus, BNC, 10 million words). Finally, Levin (2006) considers
21 "fairly infrequent" collective nouns in the press, more specifically in issues of
The Independent between 1990 and 2000.

The behaviour of animate collective nouns appears even more diverse when
anaphoric pronouns are considered (Levin 2001: 101; Levin 2006: 338) – interest-
ingly, Joosten et al. (2007) reach the same conclusion for Dutch in their own corpus
study. In English, agreement in the verb and agreement in the anaphoric pronoun
sometimes show similar trends: either an overall preference for the singular (e.g.
orchestra: over 80% of singular verbs, 84% of singular pronouns, Levin 2006), or

Table 2. Number agreement of the verb with a sample of collective nouns
in English (the percentages give the proportion of occurrences with the preferred
number in each corpus)

Strong preference for a plural verb	Strong preference for a singular verb	High variation (British English)
(Biber et al.) *staff* (> 80%) [but the present volume will show that many of these are not collective uses of the noun][a]	(Biber et al.) *audience*, *board*, *committee*, *government*, *jury*, *public* (> 80%)	(Levin 2001) *band*, *club*, *crowd*, *family*, *group*, *(the) press*, *(the) public*, *team*
(Depraetere) *youth*; + *police*, *folk*, *people* [for which the status of 'collective noun' will be rejected in § 4.1.3] (> 80%)	(Depraetere) *society* (in the sense 'all the people who live in a country', 100%), *bureaucracy*, *church*, *electorate*, *nation*, *organisation*, *peasantry*[b] (> 80%)	(Depraetere) *crew*, *crowd*, *cast*; + *staff* [which, however, is found to take mostly plural agreement by Biber et al.]
(Levin 2006) *quartet*, *minority*, *trio*, *duo* (> 50%)	(Levin 2001 – press) *association*, *audience*, *commission, committee, company, council, department, government, party, population* (> 80%) (Levin 2001 – spoken) *company, department, government, population* (> 80%) (Levin 2006) *cohort, jury, orchestra, tribe, ensemble, faculty, congregation* (> 80%)	

[a] Biber et al. (1999: 189) themselves point out differences with collective nouns : "*Staff* differs from other collective nouns in combining with numerals and quantifiers such as *all* and *some*, and in being able to occur without determiners."

[b] This finding diverges from Poutsma (1914), where *peasantry* is ranked among the nouns frequently associated with a plural verb.

occasionally a preference for the plural (e.g. *majority*, Levin 2001). But a number of nouns are commonly found with a singular verb and a plural anaphor (e.g. *jury*: over 80% of singular verbs, but 44% of plural pronouns, Levin 2006), or with no clear preference in the verb, but mostly the plural in the anaphoric pronoun (e.g. *cast*: 89% of plural pronouns). Levin (2006: 339) concludes that with collective nouns, at least in British English, the default number in the verb is the singular, but the default number in the anaphoric pronoun is the plural. This remains to be confirmed by further studies; what can be concluded for sure is that the higher frequency of plural agreement in the anaphoric pronoun is in keeping with the Agreement Hierarchy.

It is difficult to account for the preferences of individual nouns for singular or plural agreement, all the more so as collective nouns do not lend themselves

well to quantitative analysis: verbs often do not show a morphological difference between singular and plural agreement (e.g. only *be* does in the preterite); what is said about the groups differs, which might affect the proportions for each number (for instance, a verb phrase such as *comprises* imposes a focus on the collective body, hence the singular; conversely, the predeterminers *all* and *half* favour a focus on the individuals, and thus plural agreement, Levin 2001: 125, 149); and there might be cross-speaker, and cross-genre variation. For instance, while *government* is given as an example of a noun that favours singular agreement by Levin (2001), Hundt (1998: 88) finds that plural agreement is the norm in British "officialese".

Moreover, as the singular is the default number for agreement patterns, Depraetere (2003: 112) argues convincingly that with the singular, "semantic and pragmatic considerations no doubt enter the picture, but their contribution is less considerable than textbooks tend to believe": as was seen above, singular number may simply reflect syntactic agreement, so that the shift to the plural may be the only reliable element to take into account – though even there, some conventions might be at play, such as the preference for the plural with *government* in British officialese noted above, or preference for the plural for sports teams in British English (Biber et al. 1988: 189; Rotgé 2009: § 43). This restriction leads Levin (2001: 147) to conclude: "singular verb agreement appears to be the unmarked alternative for a large number of collectives, while the plural is unmarked for some."

Still, despite these difficulties, a number of hypotheses can be put forward. If one considers plural agreement, it seems that not one, but several parameters favour the foregrounding of the individuals in the group, depending on the meaning of the noun:

–   in a very few cases, singular and plural do not foreground exactly the same part of the group. Depraetere (2003: 89) finds that *army* and *church*, with singular agreement, usually denote the leaders, while with plural agreement, they tend to denote the soldiers (*army*) or the believers (*church*).

–   for a handful of nouns (*quartet, trio, duo, majority, couple*), another factor seems to be the salience of number, which appears in their very morphology (Poutsma 1914: 283; Levin 2001: 147, 2006: 334): it might favour salience of the individuals.

–   some domains might favour different agreement preferences. For instance, for 19th-century British English, Dekeyser (1975: 58f) finds that the plural is very frequent "with that class of nouns which identify a whole community or group in general", such as *audience, clergy, crew* and *public*. Conversely, the singular is preferred with political and military bodies, such as *army, association, commission, committee* and *government*. For other types of groups, the pattern is often "highly irregular": for example, *band, company, council, crowd, family, group, party* and *population* show 30 to 69% of plural verbs.

– some nouns for which the plural is more common seem to denote groups for which homogeneous behaviour is not particularly expected of the members. In a *family*, parents and children have largely different activities; a *crowd* is a loose, temporary group; the *youth* of a country (unlike the *peasantry* or the *clergy*) is not a social class with a shared place in society. In contrast, among nouns that favour the singular, an *orchestra* or an *organisation* is a body that is set up at some point; although the members of a *jury* might disagree, the final verdict is that of the jury as a whole; similarly, what is retained from an *audience* or the general *public* is the opinion of the majority.

– the "permeability" of the collective whole might also have an influence (see § 3.1.3). "Permeability", a term coined by Joosten et al. (2007), occurs when an adjective modifying a collective noun also applies to its members. For instance, *a young couple* implies young individuals – whereas *a big committee* does not entail *big members*. Joosten et al. (2007)'s study of Dutch collective nouns suggests that there might be more plural agreement with highly permeable collective nouns, as permeability might favour salience of the individuals.

Conversely, two semantic parameters at least appear irrelevant:

– the last few examples given above of nouns that favour the singular (*orchestra*, *organisation*, *jury*, *audience*, *public*) all denote institutionalised bodies, even though their members may change (e.g. *audience*); but this criterion does not appear relevant. *Clergy* and *police*, which denote institutionalised bodies in their primary sense, may be used as uninflected plurals to denote the individuals (*these clergy, ten police* – see § 4.1.3); if institutional status were a major criterion against the foregrounding of individuals, then this shift should not have occurred.

– the other parameter is size. Poutsma (1914: 283) suggests that the singular might be more common with nouns that denote large groups (e.g. *army*, *force*, *community*, *nation*), possibly because the size makes it more difficult to foreground the individuals, while the plural may be more common for small groups (e.g. *board*, *family*, *government*, *council*) or for sections of society (e.g. *aristocracy*, *gentry*, *nobility*, *peasantry*). But Depraetere (2003: 114) finds the size parameter to be insufficient. In her corpus, most nouns show a preference for the singular "in the absence of additional contextual factors", whatever the size of the group.

2.3.4 Opacification factor 3: cross-regional differences

In addition to word-individual behaviour, corpus-based research in the last two decades has established significant differences in the proportion of semantic agreement from one variety of English to another.

2.3.4.1 *American English vs. British English*

In grammars and other books on the English language, American English is regularly singled out as showing less plural agreement with collective nouns than British English. This is occasionally simplified in non-specialist works as singular-only agreement for American English, as in Scrivenor (2010):

> In British English, collective nouns are usually singular if the 'collective' is being thought of as a unit […]. But they can be plural if the members of the group are thought of as individuals. […] The Americans are more logical. Their collective nouns are always singular.

This, however, is a major oversimplification.

It is true that in American English, plural agreement in the verb is far less likely than in other varieties (though it does exist). An experiment was carried out on the sample sentence *The audience were enjoying every minute of the show*; speakers of different varieties were told that a number of sentences had been produced by non-native speakers of English, and were asked to correct them if necessary (Johansson 1979: 203; Bauer 1988: 254, cited in Corbett 2000: 188). Most speakers of British English (77% of 92 informants) and New Zealand English (72% of 102 informants) considered the sample sentence to be correct, whereas most speakers of American English (90% of 93 informants) corrected it to *was enjoying*. Another example is provided by Hundt (1998: 83): her American informants overwhelmingly considered *My family call_ me Bruce* as a Briticism. As for Fries (1981: 26), he points out that in the American edition of a book by Anthony Sampson about ITT, all the cases of plural agreement with *ITT* were replaced by singular forms. More recently, similar editing was found in the American edition of the *Harry Potter* volumes, such as: "Within seconds, the whole class was *(UK:* were) standing on their stools" (vol. 1, Chapter 8; note that the plural was retained in the possessive), or "Gryffindor really can't afford to lose any more points, can it *(UK:* they)?" (vol. 1, Chapter 16) (e.g. Yates 2007; Ajole C. 2019).

A finer distinction, however, must be made between agreement targets, namely, between verbs and anaphoric pronouns. Bock et al. (2006) find, from both sentence completion tasks (student informants) and corpus data (Wall Street Journal corpus and British National Corpus), that the proportion of plural agreement for the *verb* is indeed significantly lower in American English than in British English (2%, against

19 and 22% for two groups of British students, in sentence completion tasks; and 7% against 26% in the corpora). For *pronouns*, however, the proportions of plurals show little difference between the two varieties (38% in the American corpus, 42% in the British corpus). Levin (2001) reaches similar conclusions in his own corpus study of 26 commonly used collective nouns.[4] In the written press (issues of the American *New York Times* and the British *Independent*), he finds smaller differences in proportions for personal pronouns than for verbs (Table 3). Spoken discourse (Longman Spoken American Corpus, 5 million words, and spoken section of the British National Corpus, 10 million words) even shows higher proportions of plural agreement for pronouns in American English than in British English (Table 4). These differences in proportions are all statistically significant ($p < 0.05$).

Table 3. Proportion of plural agreement for each agreement target for a sample of 26 frequently found animate collective nouns – written press (Levin 2001: 63)

	Verb		Relative pronoun ('which' vs. 'who')		Personal pronoun	
	N	% of plural agreement	*N*	% of plural agreement	*N*	% of plural agreement
American English (*New York Times*)	3233	3%	702	24%	1383	32%
British English (*Independent*)	2943	23%	710	41%	1093	56%

'N' = overall number of cases of agreement, whether singular or plural.
'% of plural agreement' = proportion of plural agreement among these.

Table 4. Proportion of plural agreement for each agreement target for a sample of 26 frequently found animate collective nouns – spoken language (Levin 2001: 67)

	Verb		Relative pronoun ('which' vs. 'who')		Personal pronoun	
	N	% of plural agreement	*N*	% of plural agreement	*N*	% of plural agreement
American English (LSAC)	524	9%	43	74%	239	94%
British English (BNC)	2085	32%	277	58%	607	72%

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4.   The list of nouns is the following: *army, association, audience, band, clergy, club, commission, committee, company, council, couple, crew, crowd, department, faculty, family, government, group, majority, minority, party, population, the press, the public, staff, team.*

These findings raise the question of why there are such differences in proportions between verbal and pronominal agreement. Bock et al. (2006) show that they are not due to different values of semantic agreement: in both varieties, the plural focuses on the individuals, while the singular, when it is due to semantic factors, foregrounds the whole. The authors suggest a possible influence of prescriptive guidelines about collective nouns, such as (15):

(15)   Nouns that denote a unit take singular verbs and pronouns: *class*, *committee*, *crowd*, *family*, *group*, *herd*, *jury*, *orchestra*, *team*. Some usage examples: *The committee is meeting to set its agenda. The jury reached its verdict.*
(*Associated Press Stylebook*, Goldstein 2004)

A closer look at American grammars and stylebooks confirms this hypothesis, and shows an evolution over time. While 18th- and 19th-century grammars foreground the possibility of plural agreement (see (16) and (17) below), present-day recommendations tend to foreground the singular ((15) above, (18) and (19) below).

(16)   Rule III. Nouns of multitude, though they are in the singular number, may have a verb and pronoun agreeing with them either in the singular or plural.
Examples: The assembly *is* or *are* very numerous; *they are* much divided. My people *is* or *are* foolish; *they have* not known me. The company *was* or *were* noisy.
Explanation: […] We should have strict regard to the meaning of these collective nouns, in determining whether the singular or plural number is most proper to be joined with them. (Webster 1787: 34)

(17)   Rule XV – Finite verbs. When the nominative is a collective noun conveying the idea of plurality, the Verb must agree with it in the plural number: as, "The *council were divided*." – "The *college* of cardinals *are* the electors of the pope."
(Brown 1869: 585)

(18)   A collective noun takes a singular pronoun if the members are treated as a unit {the audience showed its appreciation} but a plural if they act individually {the audience rushed back to their seats}.
(*Chicago Manual of Style online*, 16th edn, 2010)

(19)   (*Associated Press Stylebook* 2016 FAQ, www.apstylebook.com/ask_the_editor_faq, accessed in 2017)
Q: *Is it staff has or staff have?*
A: Normally staff is a collective taking a singular verb.

The *Associated Press Stylebook* stands out in making a special mention of teams and (music) bands, starting with its 2008 edition, and recommending plural agreement

there.[5] But the plural seems to be recommended only with compound proper names, not with the nouns *team* or *band* themselves:

(20)   Collective nouns: Nouns that denote a unit take singular verbs and pronouns: *class*, *committee*, *crowd*, *family*, *group*, *herd*, *jury*, *orchestra*, *team*.
Some usage examples: *The committee is meeting to set its agenda. The jury reached its verdict. A herd of cattle was sold.*
Team names and musical group names that are plural take plural verbs. *The Yankees are in first place. The Jonas Brothers are popular.*
Team or group names with no plural forms also take plural verbs: *The Miami Heat are battling for third place.* Other examples: *Orlando Magic, Oklahoma City Thunder, Utah Jazz.*
Many singular names take singular verbs: *Coldplay is on tour. Boston is favored in the playoffs. Stanford is in the NCAA Tournament.*
But some proper names that are plural in form take a singular verb: *Brooks Brothers is holding a sale.*   (*Associated Press Stylebook* 2016)

In Britain, in comparison, early grammars also recommend semantic agreement (21), but there is no evolution towards a default singular in present-day guidelines (e.g. grammar in (22), style guide in (23)):

(21)   Rule IV. A noun of multitude, or signifying many, may have a verb or pronoun agreeing with it, either of the singular or plural number; yet not without regard to the import of the word, as conveying unity or plurality of idea: as, "The meeting *was* large;" "The parliament *is* dissolved;" "The nation *is* powerful;" "My people *do* not consider: *they* have not known me;" "The multitude eagerly *pursue* pleasure, as *their* chief good;" "The council *were* divided in *their* sentiments."
(Murray 1816: 230)

(22)   Collective nouns: Nouns such as *board*, *committee*, *jury*, *staff*, *team* are collective nouns in that they denote a collection, or set, of individuals. When they occur in the singular as head of the subject NP the verb can, especially in BrE, be either singular or plural, though AmE clearly favours the singular. […] The choice of a plural verb focuses on the individuals that make up the collection, on the members of the committee or jury or whatever, rather than on the collection as a unit, the official body that the members constitute.
(Huddleston & Pullum 2005: 89)

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5.   In addition, there might be isolated attempts at favouring one or the other number; for instance, Thompson (2010) reports that Channel Four's internal style guide firmly declares that '[c]ollective nouns will always be singular, not plural', or that BBC Radio News, a few years earlier, stated that collective nouns should normally be plural.

(23)   Collective nouns – singular or plural? There is no firm rule about the number of a verb governed by a singular collective noun. It is best to go by the sense – that is, whether the collective noun stands for a single entity:
The council was elected in March. The me generation has run its course. The staff is loyal.
or for its constituents:
The council are at sixes and sevens. The preceding generation are all dead. The staff are at each other's throats.
Do not, at all events, slavishly give all singular collective nouns singular verbs:
The couple are now living apart is preferable to *The couple is now living apart.*
(*The Economist* 2015, entry "collective nouns")

Are the differences between British and American English the sole result of prescriptivism about collective nouns, then? There might be a broader factor of influence: clause boundary. Levin (1999: 31) concludes from a comparative study of British and American collective nouns (LOB/FLOB and Brown/Frown corpora) that the influence of syntactic boundaries for pronoun agreement is stronger in American English: when the pronoun is in the same clause as the collective antecedent (reflexives), the American corpora show more singular agreement than the British ones, whereas the proportions are more or less similar when the pronouns are in a different clause or sentence. Similarly, a verb stands in the same clause as the collective controller. It could be that in American English, syntactic agreement is preferred within clauses as a general rule, not just for collective nouns.

All that can be established with certainty, though, is that from a similar semantic rule (plural agreement foregrounds the individuals, while the singular foregrounds the unit), which co-exists with syntactic principles (the singular might just mark syntactic agreement), there has been a strong evolution towards favouring syntactic agreement in American English within the same clause as the collective noun, whereas this move has not taken place in British English.

How does this translate cognitively? Bock et al. (2006: 92, 99) propose that the differences between British and American agreement lie in the lexical specifications of each collective noun: while for American speakers, the lexical specification is always singular by default,[6] "British speakers treat certain collectives as plurals with respect to verb agreement because, lexically, the collectives carry a plural number specification". For instance, some British speakers associate the plural by default for nouns that denote sports teams or corporations. Similarly, Heffer (2010) finds that in sports, references to teams often show plural agreement (e.g. *England were all out for 50*).

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6.   Bock et al. (2006: 89) mention plural preference for the nouns *people*, *police* and *cattle*, but as will be seen later on, the present study concludes that these are not collective nouns, but aggregate nouns.

2.3.4.2   *Other varieties of English*

Agreement with collective nouns in other varieties of English is far less documented.

Australian and New Zealand English seem to stand in-between American and British English (cf. Bauer 1988's experiment with *The audience were enjoying every minute of the show*, mentioned at the beginning of § 2.3.4.1 above). The two varieties show a number of similarities with British English. Hundt (2009a), analysing a set of 35 collective nouns in three comparable corpora (ICE-GB, ICE-AUS and ICE-NZ), finds that most (e.g. *committee*, *government*, *audience*) favour singular agreement in British, Australian and New Zealand English, and that the plural is preferred for the same few nouns (*couple* and *staff*) (Hundt 2009a: 218). But Australian and New Zealand English do not fully pattern on British English. For instance, in the sports sections of newspapers, New Zealand English, like American English, shows predominantly singular agreement, unlike British English (Hundt 1998: 87).

Beyond this, it is difficult to reach definite conclusions, because any study is confronted with the heterogeneous behaviour of collective nouns (Hundt 2009a). For instance, *government*, *family* and *board* show a significantly higher degree of singular agreement in Australian and New Zealand English compared with British English; this might suggest that Australian and New Zealand English behave in a similar way, as opposed to British English. But the results differ for other nouns. For example, *population* mostly takes singular agreement in the British and New Zealand corpora, but more plural in the Australian component. Or *class* mostly takes singular agreement in British and Australian English, but has more plural agreement in the New Zealand part of the corpus.

As regards outer-circle varieties (that is, varieties spoken in countries in which English is not the first language), studies exist for Singapore, the Philippines and Hong Kong (ICE-SING, ICE-PHIL, ICE-HK). But caution is required. Hundt (2006) compares the English of Singapore and the Philippines, the former historically influenced by British English, the latter by American English. According to Schneider (2003: 260–266), they are at different stages in their development as new Englishes. Philippine English, which is at the nativization stage, may be expected to be closer to American English than Singaporean English, which is now at the stage of "endonormative stabilization", is to British English. One difficulty, however, is that in these varieties, speakers tend not to mark singular agreement (-s) in verbs (e.g. *So he have to do what he's told* [ICE-SING, s1b-066]), probably as a result of the substrata (Hundt 2006: 213; Ziegeler 2000: 94; McKay & Bokhorst-Heng 2008: 85). As Hundt (2006: 213) concludes, "it is therefore difficult to decide whether a verb form that is not marked for singular is intended as a singular or a plural verb form." This makes comparison with British and American English all the more difficult as the verb, as was seen above, is the main locus of difference between the two varieties. Hundt chooses to count the unmarked verb forms as plural, despite the

limited reliability of that choice, and unfortunately does not dissociate pronouns from verbs in her figures.[7] Still, she concludes from her data that "plural concord is significantly more frequent in SingE than in PhilE" (22.7% against 14.6% respectively, Hundt 2006: 215). This compares with 23.9% for ICE-GB (and 19.6% for ICE-NZ), which leads her to conclude that Singapore English seems to be still rather close to British English. She also suggests that in terms of agreement with collective nouns, spoken use and written use are more similar in these varieties than they are in British English (Hundt 2006: 219). Further research is called for, however, as Hundt (2006: 223) herself concludes, all the more so as a former study of eight collective nouns by Sand (2005) reaches the opposite conclusion – a trend towards singular agreement in contact varieties.

As regards Hong Kong English, Wong (2009), comparing thirty-five collective nouns in the ICE-GB and ICE-HK corpora, finds that plural agreement of the verb is less common than in British English (19.4% against 23.9%). The amount of data, however, is rather low (Depraetere 2003 considers it too low for reliable quantitative analysis), so that the variation might also be due to other parameters than regional variation – such as the nouns used, or the construals of the collective wholes in context. Wong concludes that the higher proportion of singular verbal agreement in Hong Kong English might be due to the (relatively recent) influence of American English on the Hong Kong variety; but again, further research is required for more conclusive analyses.

2.3.5   Opacification factor 4: Genre and stylistic variation

As noted by Hundt (1998, 2009a), some studies suggest that variations depend on genre, or at least on some form of stylistic variation.

These studies occasionally record impressions rather than accurate evidence: Bauer (1988) feels that there are differences from one section of a newspaper to another; Fries (1988: 102) is "struck by the abundance of plural verb forms" in a sample of magazines for a young audience. But there is also more definite evidence of an influence of stylistic variation. Quirk, Greenbaum, Leech and Svartvik (1985: 758) point out that "on the whole, the plural is more popular in speech" than in written English.

For the press, Bauer (1988)'s impression of variation between different subsections of the same newspaper is confirmed by Levin (2001: 160), who finds that

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7.   More specifically, if the agreement targets are a singular verb and then a singular pronoun, the whole is counted as 1 occurrence of singular agreement; similarly, two plural forms are counted as 1 occurrence of plural agreement; a singular verb and a plural pronoun are treated as 1 occurrence of "mixed concord".

in *The Independent*, singular agreement is most frequent in the news section, least frequent in the sports section, and has intermediate frequency in the features section. His study also finds differences between the sub-corpora of the BNC, with more plural agreement in conversations (less formal, more spontaneous) than in the "context-governed subcorpus" (transcribed meetings, speeches, radio programmes). He suggests a possible link between formality and singular (regarded as more "correct" language), but this can only be a tentative conclusion, as he also notes that in informal genres, speakers tend to focus more on the individuals than on the collective wholes (Levin 2001: 160).

Various remarks on one noun, *government*, seem to confirm an influence of genre or stylistic variation. Fries (1981) notes that in government documents ('officialese'), plural agreement is much more common with that noun than in newspapers ('journalese'). Mollin (2007) finds that the Hansard transcriptions of parliamentary debates systematically show plural agreement of the verb (39 occurrences in her sample), and that the singular agreement used by MPs during the debates is often changed to a plural form (26 cases out of the 39).

The exact influence of genre or stylistic variation, however, is very difficult to establish, because again, any study is immediately confronted with the heterogeneity of agreement preferences for individual nouns.

2.3.6 Opacification factor 5: Assessing the hypothesis of a diachronic evolution towards more singular

A number of studies suggest a gradual increase in singular agreement with collective nouns. As reported in Levin (2001: 36), for British English, Liedtke (1910: 180f.) concludes to a peak in plural agreement for the verb in the 17th and 18th centuries, followed by a decrease from the middle of the 19th century. Dekeyser (1975: 46f.) also finds a decrease in plural agreement during the 19th century, for both verbs and anaphoric pronouns. This is confirmed by Lakaw (2017)'s quantitative analysis of the Old Bailey Corpus (14 million words, central criminal court proceedings) and CLMETEV (Corpus of Late Modern English Texts – Extended Version, De Smet 2006, 15 million words, mainly fiction). His study finds a similar trend for American English, based on the *Corpus of Historical American English* (COHA, Davies 2010–, 400 million words). The period he considers is 1810–1899. At the start, both American and British English show approximately the same proportions of singular agreement: around 57% for verbs and 35% for personal pronouns (Lakaw 2017: 19) – the figures tie in nicely with the Agreement Hierarchy. By the end of the 19th century, there has been an increase in singular agreement, both for verbs and pronouns, in both varieties: for verbs, the proportion of singular

agreement reaches 75% or so for British English, 68% or so for American English (against 57% at the start of the century); for pronouns, the figures are approximately 52% and 45% respectively (against 35% or so in the 1810s). The rise in the overall proportion of singular agreement (verbs and pronouns considered together) between the beginning and the end of the period is found to be statistically significant, in both varieties. These figures also suggest that singular agreement is more common in *British* English than in American English by the end of the 19th century; Lakaw (2017: 26) concludes that the turning point for singular preference in American English must be somewhere in the 20th century. This is in keeping with the prescriptions of grammars and dictionaries studied in § 2.3.4.1 above: in the 19th century, they do not yet foreground the singular.

Curiously, in several 21st-century studies, this rise of singular agreement is presented as progress, as though strict grammatical agreement were the ideal. Lakaw (2017: 28) concludes that American English is "lagging behind" British English at the end of the 19th century, whereas it is now "the more advanced variety." Hundt (2009b: 28) writes that "AmE is actually leading world English in an increasing use of singular concord with collective nouns in the twentieth century." Wong (2009: 65) goes even further: "The preference for singular concord [in Hong Kong English] serves as a signal that Hong Kong English might be less conservative than British English in converging towards the norm of using singular concord with collective nouns across the globe." Such a surge of feeling should not give rise to hasty conclusions.

Indeed, to date, there is no strong evidence of a decrease in plural agreement for *all* collective nouns. For instance, Lakaw (2017: 21) finds that nouns of the FAMILY (e.g. *couple*) and EMPLOYEE (e.g. *crew*) domains still favour *plural* agreement at the end of the 19th century, and that nouns of the POLITICS domain (e.g. *government*, *committee*) even show a statistically significant decrease in singular agreement in British English over the period. Data are difficult to analyse, even in large corpora, due to the heterogeneity in the behaviour of individual nouns; different studies therefore reach different conclusions (see Levin 2001; Tristram 2014). For instance, while Bauer (1994: 61) notes a slight increase in singular verbal agreement in editorials from *The Times* (1900–1980), starting from the 1930s, Levin (2001: 87) points out that if there were a trend towards more singular in British English today, there should perhaps be more singular in speech than in more "conservative" genres such as scientific writing, which is not the case.

Siemund (1995), who studies agreement individually for each collective noun in the press subcorpora of the LOB (Lancaster-Oslo/Bergen corpus) (British English, 1961) and FLOB (Freiburg update of the LOB corpus) (British English, 1960–1990) corpora, suggests rather that some nouns have evolved towards more singular agreement, others towards more plural agreement, and that what has decreased is

agreement variability for a given noun. Bauer's 1994 study itself might meet this conclusion: about his main collective noun, *government*, he notes that from the 1930s, agreement tends to be in the singular for foreign governments, and in the plural for the British government, where before that, the plural seemed more widely used whatever the reference. But even the notion of decreasing variability must remain a tentative conclusion. Fries (1981: 21) points out that individual preferences are already to be found in Shakespeare's works. For instance, they show a strong preference for singular agreement with *army*, a slight preference for the plural with *senate* and *nobility*, and a strong preference for the plural with *multitude*. Moreover, Levin (2001: 87) finds more variability in agreement patterns in the spoken section of the BNC than in issues of the *Independent*.

2.4   Conclusion on hybrid agreement in relation to the definition of collective nouns

It is now time to re-examine the question raised at the beginning of this chapter: should hybrid agreement be regarded as a defining feature of the class of collective nouns?

I hope to have shown that from a formal point of view, it should not. Based on a comparison with hybrid agreement in gender systems, I have concluded that hybrid agreement is not a class of agreement in itself, but that plural agreement is superimposed on a default singular agreement pattern as a semantic override, outside the NP (or DP in some theoretical frameworks). This plural override agreement is common only for humans, and impossible for inanimates; this is a manifestation of the universal Animacy Hierarchy.

Hybrid agreement could only be viewed as a defining feature if it entailed a specific *construal* of the collective wholes, compared with other count nouns that denote pluralities of units. At this stage, what has been established is that hybrid agreement conveys a double layer of construal, with a collective whole that may be considered distinctly from its members (property of non-additivity; for instance, *a big committee* does not entail *big members*). This double layer exists only with singular agreement (*the jury are big* has to refer to the size of the individual jurors), as the plural foregrounds the members.

I have shown that this semantic foundation for hybrid agreement (focus on the collective whole vs. on the individual units) is very much opacified by a number of factors: asymmetry between singular and plural agreement (default agreement pattern vs. semantic override), different individual behaviours of nouns, cross-regional differences (especially different preferences depending on the agreement target), genre or stylistic variation, and possibly diachronic evolutions. These factors of

opacification, however, are the result of an interaction between semantic motivation and grammaticalisation (agreement). What should be retained for comparison with other nouns that denote pluralities of entities is just the semantic basis, construal, all the more so as hybrid agreement does not exist in a number of other languages that have collective nouns, such as French,[8] from which many English collective nouns are borrowed.

Comparisons start within the set of count nouns that denote pluralities of entities: Chapter 3 considers whether those that do not license hybrid agreement (inanimate count nouns) show a double layer of conceptualisation as well. For a full comparative perspective, it also establishes whether there are any additional similarities, or differences, with the nouns that license hybrid agreement.

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8.   A handful of nouns such as *majorité* 'majority', are used in the singular if regarded as syntactic heads of the NP, and in the plural if they are reanalysed as parts of complex quantifiers; but this is a different case from the hybrid agreement of English.

CHAPTER 3

Establishing the boundaries
of 'collective nouns' for count nouns

Chapter 2 concluded that, despite the focus of grammars of English on collective nouns that license hybrid agreement (termed "animate count collective nouns" here), this specificity could not be regarded as a defining feature of the class of collective nouns on merely formal grounds. The class of collective nouns could only be restricted to those nouns if the construal of the plurality differed. Hybrid agreement, despite opacification factors in number assignment, was shown to reflect a double layer of conceptualisation, with non-additive properties for the collective whole when agreement is in the singular (e.g. *a big committee* evokes the size of the group, not that of the individual members). It must now be seen whether count nouns that do not license hybrid agreement (inanimate count nouns) may reflect such a double layer. Moreover, are there further similarities in the construal of the pluralities, independently of what hybrid agreement conveys? Are there any differences as well? This is what the present chapter addresses, in order to establish the boundaries of the class of "collective nouns" among count nouns that denote pluralities of entities.

The literature on English collective nouns shows little interest in inanimate count nouns; in studies of French, they are regarded as collective, except for one controversial type: "underdetermined" nouns (Lammert 2010: 359). Underdetermined nouns are those which do not imply a privileged nature for the units of the collective whole; examples are *group*, *collection* or *myriad*. They differ in this respect from most count nouns that denote pluralities (e.g. in a literal sense, an *army* involves *soldiers*, a *forest* is composed of *trees*). To Flaux (1999: 475) and Lammert (2010: 341ff), *group* and *collection* are collective nouns ("generic" ones for Flaux, "meta-collective" for Lammert because they are meta-terms for other collective nouns in dictionary definitions), but *myriad* is not. Benninger (2001), on the other hand, proposes to exclude all of them, on the grounds that none exhibits conceptual autonomy – her arguments will be examined in more detail further in the chapter. She also excludes metaphorical uses of collective nouns, such as *swarms* in *swarms of helicopters*: to her, *swarm* loses its collective status in this construction, to become a quantificational noun (Benninger 2001: 30).

Talking about a "count noun" is of course a somewhat oversimplifying shortcut, as /count/ and /non-count/ are features that are not necessarily inherent in nouns: it is a well-established fact that a number of nouns may have a count or a non-count feature depending on the context of use (e.g. *wine / a wine*). Still, the label "count noun" will be retained here as a short-cut for "a noun that conventionally has a /count/ feature". Indeed, as noted by Langacker (2008: 132), "particular forms are […] conventionally established as either a count noun or a mass noun – or often both. Learning such conventions is part of mastering a language." Most nouns that denote pluralities of entities do not show an alternation between count and non-count; and when they do, which will be crucially important to the study, variation will be specified.

The chapter first reconsiders the set of collective nouns that license hybrid agreement (animate count collective nouns), in order to look for further shared characteristics of construal beyond the double level of conceptualisation evidenced by hybrid agreement. This set of characteristics then serves as a basis to examine a number of theoretical issues about references to humans that are rarely, or never, addressed – do all collective nouns for humans license hybrid agreement; does hybrid agreement guarantee a collective noun; are *group* nouns collective? – and from there, to propose a tentative list of collective nouns for human beings (§ 3.2). Sections 3.3 and 3.4 then extend the analysis to animals and inanimates respectively, again proposing a list of collective nouns as a result. The study will show that not all count nouns that denote pluralities of entities may be regarded as collective; alternative labels will be proposed for those that imply slightly different conceptualisations. Finally, § 3.5 considers the transcategorial case of N1s in binominal constructions of the type *Det + N1 + of + N2-s*, which, I argue, have led to a categorisation of too many nouns as collective, owing to a lack of distinction between word and construction levels.

3.1   Further construal characteristics of collective nouns that license hybrid agreement

Chapter 1 (§ 1.4) listed three preliminary features that collective nouns must have, based on the sole terms "collective" and "noun":

– a plurality construed as the result of a grouping operation,
– a meronymic relation between a plurality and the entities (units) that compose it,
– a /plurality/ feature at lexical level.

These are now taken for granted; the present section examines further shared characteristics of construal.

3.1.1   Cohesion of the units

Cohesion, or "the property of being related together" (Acquaviva 2008: 104), is a well-established feature of collective wholes: even with a noun in the singular, a collective predicate,[1] such as *meet* or *be unanimous*, is possible (e.g. *the team met*, *the jury was unanimous*, as opposed to *the player met). This is evidence of internal plurality. Due to cohesion, the action may often be carried out without all the units in the plurality being involved, as in *the family found the solution* – other examples of predicates are *eat a pizza* or *build a raft* (Champollion 2017: 75).

A collective noun, though, does not impose a collective interpretation on the predicate: depending on the semantics of the verb, there may be, rather, iteration of an individual action. *John photographed the team* may be said even if John photographed each individual player successively (Gil 1996: 65); a similar example for animals is *He milked the herd*. The interpretation may depend on the context (e.g. *photographed the team*) or be imposed by a distributive property in the verb (e.g. *milk* is distributive-only; another example would be *smile*, as in *the jury smiled*). In either case, with distributive interpretations, all the units in the plurality normally have to be involved, although an exception might be tolerated (the overall impression is still that everyone is involved).

When the collective noun is used in the plural (e.g. *teams*), cohesion means that the collective whole is treated as only one atom with what Winter (2002), after Dowty (1987), calls "atom predicates", such as *be numerous: all of the enemy armies are numerous*, for instance, entails *every enemy army is numerous*. In other words, the armies are not merged in the representation, so that the collective nouns behave like nouns that denote single individuals: similarly, *all the children smiled* entails *every child smiled*. Cohesion is not as strong with what Winter (2002) terms "set predicates", such as *gather: all the committees gathered*, for instance, may not equate *every committee gathered* – all the committees may have gathered *together* in one big convention, whereas with *every*, each committee organised its own meeting.

3.1.2   A bounded plurality

Because the nouns that license hybrid agreement are count by default, their default construal is that of a bounded whole (Croft 2012: 71). Boundedness means that the entities (here, the collective wholes) are "inherently demarcated and come with

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1.   As defined at the beginning of Chapter 1, a collective predicate is one that applies to a group as a whole, whereas a distributive predicate applies to each member individually (Landman 1989: 165). Some predicates are collective-only, or distributive-only; others acquire a collective or a distributive interpretation in context (Huddleston & Pullum 2002: 513-515).

their limits already specified" (Frawley 2013 [1992]: 81). Consequently, like any count nouns, animate count collective nouns do not by default have the semantic property of referring cumulatively (*a crowd* + *a crowd* does not typically make *a crowd*, but *two crowds*, whereas for non-count nouns, *water* + *water* = *water*, Quine 1960: 91). The boundaries of the collective whole may be erased, though, unlike those of individual entities: while *a juror* + *a juror* cannot yield *a juror, with collective wholes, merging is theoretically possible most of the time: two crowds may merge into one, though this would have to be the result of an official decision for institutionalised pluralities such as juries or teams (Flaux 1999: 476). This merging possibility is an effect of internal plurality: basic plurals show cumulative reference (*dogs* + *dogs* = *dogs*) (Link 1983: 303).

Internal plurality also has an effect on the opposite operation: divisive reference. While a count noun that denotes an individual does not allow homogeneous divisibility (the parts of an *animal* may not be an *animal*), unlike non-count nouns (the parts of *water* are *water*) (Cheng 1973: 286–287), there is more variability with animate count collective nouns. The collective whole may often be subdivided into parts of a similar nature (a *team* may be split into two *teams*) (Flaux & Van de Velde 2000: 58; Lammert 2010: 97), but world knowledge may make this very difficult for some institutionalised bodies. For instance, a *jury* cannot normally get subdivided, because the number of jurors is fixed.

Boundedness does not mean that the collective whole may not lose one member, or gain one. For instance, people may join a *crowd* or leave. The constraints on the composition of the whole vary from noun to noun. For a crowd, losing members is easy because the only constraint is a rather high number of people (if there are too few people left, there is no longer a crowd). When there are more constraints, losing one member is more difficult. For instance, a football *team* is not complete without one player for each position (defender, etc.) and substitutes; a *jury* requires a specific number of members, such as twelve for the Crown Court in Britain. If one member leaves, the position continues to exist, and will eventually be filled by someone else; this means that the boundaries of the plurality do not change at an abstract level. Such variability from one noun to another is not specific to collective nouns: the same holds for individuals (also termed "atoms"). A *flower* may easily lose a couple of petals and still be viewed as a full flower (at least by the lay person), because the number of petals is not viewed as constrained; but an *animal* may not lose a leg and be viewed as complete – it would be missing a leg.

Rather, boundedness is to be understood in terms of "having a discernable boundary" (Langacker 2008: 136), as implied also by Frawley (2013 [1992])'s definition at the beginning of this sub-section. For individuals ("atoms"), bounding can be achieved through contrast with the entity's surroundings (e.g. the boundaries of a *lake* contrast with the land around it), internal configuration (a *bicycle* is organised

in parts), or function (as for the *handle* of a baseball bat, which is construed as having a natural boundary although the bat is one continuous segment of wood) (Langacker 2008: 136). The same possibilities are found with animate count collective nouns (Langacker 2008: 136; Lammert 2010: 34): they may organise spatial grouping (e.g. *crowd*, or a scattered *herd*) or functional grouping (e.g. *team*: the members meet occasionally, but do not have to be visually grouped all the time; if a player from a different team joins team A on the football pitch, he/she will not be included in team A, which has its own internal configuration). Lammert (2010: 34) adds social grouping (e.g. *clergy*).

In all cases, the /count/ feature of animate count collective nouns means that boundedness exists at *lexical* level (in the sense that it is part of the conventional grammar of the word, and so, of the conventional construal): for example, if *committee* is used in an NP that does not itself imply contextual boundedness, such as an indefinite plural (e.g. *some committees [include community representatives]*), each committee is itself bounded, that is, retains its individual boundaries. Someone who starts making a list of relevant committees will not make a list of the members of those committees; each committee is viewed as one atom. Section 4.1.2 below shows that this distinction between lexical and contextual boundedness (and bounding) is central to understand differences in construal between collective wholes and other types of pluralities of entities.

3.1.3   Non additivity considered further: Extreme heterogeneity in the degrees of permeability

As mentioned in Chapter 2, all the nouns that license hybrid agreement have at least one "non additive" property (Gil 1996: 63), that is, a property which is ascribed to the collective whole, but not to the units. For instance, *a big committee* evokes the size of the whole, not that of the members. In that sense, the collective whole denotes more than the sum of its parts, because it is "endowed with some form of additional structure". This is a result of the double layer of conceptualisation reflected in hybrid agreement.[2] Chapter 2 also pointed out that non-additivity is lost with plural override agreement (e.g. *the jury are big* has to refer to the size of the members), as plural agreement corresponds to a focus on the units.

Beyond this general description, however, what must be stressed here is the extreme heterogeneity among animate count collective nouns: some are much more

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2.   As will be shown later on in the volume, non-additivity is a specificity of count nouns. By contrast, with *furniture* nouns, *big furniture* implies *big items of furniture*; similarly, for particulate masses, *fine dust* implies *fine grains*.

"permeable" than others, that is, have more qualities that apply to the units than to the collective whole (Joosten et al. 2007) – so much so that for some of them, it is difficult to find more than one quality that is specific to the whole. Consequently, the same adjective, for instance *old*, may apply to the whole with one noun (*an old club*), but to the members with another (*an old audience*) (Joosten et al. 2007: 85). Joosten et al.'s 2007 exploratory study, the only one to date that mentions any differences in permeability, concerns Dutch collective nouns; this subsection presents their findings, then transfers their analysis to English, with adjustments where necessary. Their tentative conclusion is then refined and taken one step further.

The authors point out that selection of the most adequate properties for their study is crucial: *rich*, for instance, would not be a good choice because in *a rich family*, it is difficult to decide whether *rich* applies to the whole or to the members – there cannot be a rich family without rich members. They select the six properties given in Table 5. For instance, *founding* may not be applied to humans, so that it has to apply at "collection level"; conversely, *blond* or *drunk* have to apply to the members.

Table 5. Selection of properties that favour collection or member level (Joosten et al. 2007)

Property	Individuation level (where acceptable)
eeuwenoud = 'age-old'	collection level
oprichten = 'to found, to start'	collection level
groot = 'big'	collection or member level
jong = 'young'	collection or member level
blond = 'blond'	member level
dronken = 'drunk(en)'	member level

From this sample of properties, Joosten et al. (2007) establish three types of collective nouns for Dutch, which stand on a gradient of permeability:

1. Type 1: *vereniging* 'association', *maatschappij* 'company', *firma* 'firm', *bond* 'union', *club* 'club', *partij* 'party', *organisatie* 'organisation', *comité* 'committee', *koor* 'choir', *leger* 'army', *regering* 'government', *orkest* 'orchestra', *orde* 'order'. These nouns license *eewenoud* and *oprichten*, but not *dronken* and generally not *blond*. *Groot* typically applies to the whole, though *jong* may sometimes apply to the members as well. The low degree of accessibility of the members is explained by the fact that the wholes may exist independently of specific members: an orchestra retains its integrity even if all the members change over time – conversely, it may cease to exist without the members ceasing to live.

2.   Type 2: *team* 'team', *bende* 'gang', *familie* 'family', *ploeg* 'team', *staf* 'staff', *redactie* 'editorial staff', *klas* 'class', *jury* 'jury', *panel* 'panel', *delegatie* 'delegation'. Both collection and member level interpretations are common. *Eewenoud* is not licensed, but *oprichten* is; at the other end of the scale, *blond* and *dronken* are licensed as well. *Groot* typically applies to the whole, *jong* to the members.

3.   Type 3: *duo* 'duo, pair', *echtpaar* 'married couple', *kliek* 'clique', *gezin* 'family, household', *publiek* 'public', *bemanning* 'crew', *tweeling* 'twins', *trio* 'trio, three-some'. These nouns do not license the words at the top of the chart (*eewenound* or *oprichten*), while they do those at the bottom; *jong* and, usually, *groot* apply to the members. When the noun imposes a precise number of members (e.g. two for *duo*), *groot* has to apply to the members. The collection does not have a life independently of its members: "if all the members of a crew die, there is not a crew any more" (Joosten et al. 2007).

The property test is confirmed by two other types of tests. The first one is compatibility with other markers such as *elkaar* ('each other'), the prepositions *tussen* ('between') or *onder* ('among'), or by the adverb/adjective *onderling* ('mutual, between themselves'), all of which profile the members: they are only licensed by type 2 and type 3 nouns. The second test is the proportion of plural override agreement: although there is not always a one-to-one correspondence, generally speaking, types 2 and 3 show more plural agreement than type 1.

Joosten et al. (2007) call for a similar study in other languages, especially English, which seems to offer potentially similar results: Levin (2001) and Depraetere (2003) find that *government* and *company* take singular agreement more often than *family* or *team*, which themselves trigger plural agreement less often than *crew* or *couple*. A similar study for English is what is proposed now, for the same sample of nouns. The comparison is all the more relevant as Huddleston and Pullum (2002 : 1501) note that in English, too, *each other* is more acceptable with the antecedent *one couple* (example *One couple clearly hated each other's guts*), for instance – a type 3 noun –, than with *the cabinet/government* (example ?*The cabinet/government didn't like each other very much*).

Application to English is not always easy, because collocations with the English equivalents of the terms in Table 1 are rare in the BYU-BNC, COCA and in Google Books, so that acceptability judgments sometimes have to rely on intuition. Still, the English nouns sampled here do show a gradient of heterogeneity; they tend to behave like their Dutch counterparts for type 1, but there are more differences for types 2 and 3. Those that behave partly differently are signalled by underlining:

1. Type 1 (very similar to Joosten et al's. 2007 findings for Dutch): *organisation, company, firm, union, club, party, <u>committee</u>, choir, army, government, <u>orchestra</u>, order*.
   - they generally license *age-old* or *ancient* (though this is more difficult for *choir* and *orchestra*, probably because they are not meant to last through the ages).
   - they generally do not license *drunk(en)* or *blond/fair-haired* (though *orchestra*, and possibly *committee*, do, perhaps because they denote smaller groups and so allow for a stronger focus on the members of the institution).
   - *big* applies to the whole; *young* generally applies to the whole, but may sometimes apply to the members as well (*committee, choir, army, government, orchestra*). Interpretation largely depends on world knowledge: *a young army* in a well-established country may not mean that it was set up recently.
2. Type 2: *team, gang, <u>family</u>, staff, class, jury, panel, delegation* + *<u>duo</u>, <u>trio</u>, <u>crew</u>, <u>household</u>* (moved from type 3). As noted for Dutch, both collection and member levels are common.
   - they generally license *found, start* or *set up*, but not *age-old* or *ancient*. *Family*, though, is compatible with *ancient*. The reason is that a family may exist through the ages, whereas the other collective wholes are more temporary. Note that in Dutch, there are two different words for *family*, belonging to types 2 and 3 respectively; in English, *family* clearly ranks among type 2 nouns.
   - they license *blond/fair-haired* or *drunk(en)*. For some of the nouns, such as *family*, the adjective seems more acceptable in predicative position than in attributive position (e.g. *the whole family was drunk*).
   - *big* applies to the whole, *young* typically to the members. With *duo* and *trio*, which impose a fixed number and thus make reference to the whole impossible, *big* was not found to apply to the members as in Dutch: it is used for a type of musical piece. For instance: 'In Act 5 – a little cavatina (nothing much), the *big duo* will attract attention; the succeeding barcarolle, of which I must cut half because of the situation, will be lost. A very short trio almost unaccompanied will be received neither hot nor cold.' (Ashbrook 1982: 187, italics added).
3. Type 3: *<u>pair</u>, couple, <u>clique</u>, <u>public</u>*.
   - they do not license *set up, found* or *start*.
   - they license *blond* and *drunk(en)*, though a *blond public* is odd as a large number of people are not expected to have the same hair colour.
   - as in type 2, *young* typically applies to the members. But it is not the case for *big*, contrary to Joosten et al.'s 2007 findings for Dutch: it clearly applies to the members in only one case: *couple*, where *big* is a less heavily

connoted word than *fat*. It applies to the whole for *clique*; and the collocation *big + noun* is improper for *public*, as well as with *pair*, except in the quantifier *a big pair of [noun]*, where it applies to the members.

Three conclusions can be drawn from this study, which take Joosten et al.'s 2007 findings one step further. First, as in Dutch, English animate count collective nouns exhibit different degrees of permeability, that is, different degrees of (relative) autonomy of the collective whole in the conceptualisation. This could be confirmed through tests such as compatibility with an attributive adjective that denotes a human property (*a happy organisation vs. *a happy pair*). Rather than define three types of nouns along a gradient of permeability, though, it appears more effective to retain only the notion of gradient: even within a 'type', there are partial differences. Secondly, as in Dutch, degree of permeability and likelihood of plural agreement seem to converge, at least predominantly. Thirdly, two properties 'resist' transfer to the members more than others: size and age/recency. This is confirmed by a more general search for *adjective + [collective noun]* collocations in the BYU-BNC (Davies 2004–) and COCA (Davies 2008–) for the whole sample as well as for the whole list of collective nouns that will be proposed further down in the chapter: for extremely permeable collective wholes, such as *couple*, one of these properties is the only one that may apply to the whole and not to the members (e.g. *a new couple* does not have to imply *new people*).

3.1.4 Collective nouns, senses and facets: Hybrid agreement does not guarantee a collective 'noun'

As noted in § 1.4.4, although the tradition invariably considers the class of collective 'nouns', the collective dimension does not always feature in the lexical material of the noun as a whole. In fact, most of the nouns in Table 2 (§ 2.3.3) are not collective-only: *audience*, *board*, *bureaucracy*, *church*, *club*, *government*, *organisation*, as well as *committee* in 18th- and 19th-century English (which could have the sense "a meeting or a session of such a body", as in *This day a Committee was held*, OED 2018). There, the collective feature belongs to one of the senses of the noun, which is recorded as polysemous in dictionaries; for instance, *organisation* may also denote the fact of organising, or the way something is organised. Sometimes, the collective feature belongs not even to one sense, but to one facet of meaning. While a "sense" implies a polysemous word, a facet of meaning is "a discrete component of a single sense", which is not always activated in discourse (Cruse 1995: 44).[3]

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3. Cruse gives the example of *book*, which activates the facet [TOME] in *The book weighs four pounds*, and the facet [TEXT] in *The book is well written*; yet it cannot be said to be polysemous.

For instance, *forest* is not collective in the sentence *The whole floor of the forest is carpeted with wild strawberries* (*The whole floor of the trees/of the group of trees is carpeted …*). In discourse, the collective facet is found only if it is part of the "active zone" for the context, defined as follows: "[t]hose facets of an entity capable of interacting directly with a given domain or relation are referred to as the active zone of the entity with respect to the domain or relation in question." (Langacker 1987: 272–273).

Although such differences have not been studied at all for English, they raise major theoretical questions. Most important of all, where are the boundaries of the class of collective nouns: is a facet (that is, plural reference) sufficient – is the noun *football* collective, for instance, because it may occur in sentences such as *Mozambican football is in mourning*? A related question, which is particularly important given the focus on hybrid agreement in the English tradition: does hybrid agreement guarantee a collective noun as head of the subject NP?

These issues have never been addressed for English; in studies of French collective nouns, six authors mention them, but with partly diverging conclusions (Borillo 1997; Flaux 1999; Lecolle & Leroy 2006; Gross 2008; Lammert 2010). Their analyses are taken up here, applied to English, and reconsidered in the light of new arguments for a more definitive conclusion.

3.1.4.1   *Distinction between lexicon-based and discourse-based collective reference*

Borillo (1997) makes out two very different processes through which French nouns that are not collective-only acquire their collective sense or facet.[4] One is deverbal derivation, as in *association* (from the verb *associer* 'associate'), *organisation*, *délégation*, *expédition*, etc. The deverbal nouns originally denoted an abstract notion (*the fact of [vb-ing]*, for instance *the fact of associating*); then, through metonymy, the noun also came to denote "the protagonists of the action" ("les protagonistes de l'action", 1997: 115). These nouns, like collective-only nouns, are collective "by definition", that is, the sense is part of the lexical content of the noun; the list of them is closed.

The second process is "recategorisation rules"; the noun is not collective at lexical level, but acquires the status of collective noun in context. The list of such nouns is open-ended (endless, even), and the collective dimension is often a facet rather than a sense. It contains common nouns, such as *commission*, *parlement* ('parliament') or *université* ('university'), and many proper names (e.g. *ONU* 'UN').

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4.   Borillo (1997) does not use the concept of "facet"; this is refined by Lammert (2010: 330), though the idea is implicitly there when Borillo writes that the collective dimension is acquired from the context through recategorisation.

Borillo (1997: 117) identifies three types of semantics concerned by recategorisation rules: institutions (*SNCF*, *commission*), inhabited places (*la salle applaudit* 'the room cheered'), and socio-economic sectors (*le football est en deuil*, 'football is in mourning' / *l'industrie fromagère se serre les coudes*, 'the cheese industry sticks together'). Flaux (1999: 489) adds another two for humans: time references (e.g. *notre année était réunie dans le réfectoire*, 'our form [literally, 'our year'] were gathered in the dining hall') and abstract notions (e.g. *noblesse*, 'nobility'). The recategorisation process is always the same, though with varying degrees of productivity: from an inanimate sense, animate reference is achieved via metonymy (from the institution, etc. to its members, from a place to those who live or work in it) (Borillo 1997; Lammert 2010).[5]

Are all these nouns with collective facets 'collective nouns'? Conclusions differ. Lecolle and Leroy (2006: 545), who focus on proper names, consider *Japon* 'Japan' or *Belgrade* as "collective metonymic proper names".[6] Gross (2008: 35), who considers common names, similarly treats them all as fully collective. He ranks *noblesse* 'nobility' among "human collectives", like prototypical collective nouns, and labels the other types of metonymy (place, institution, time reference, socio-economic sector, including *gouvernement* 'government'), "human collectives by metonymy". Flaux (1999: 488) draws a similar distinction between "collective nouns" and "nouns that take a collective sense by extension or derivation" (for those that are the result of recategorisation, including *noblesse* 'nobility'). Borillo (1997: 113–115), perhaps more convincingly, distinguishes between three cases:

1. "nouns that are collective by definition"; these are subdivided into:
    a. exclusively collective nouns (for which dictionary definitions use meta-terms such as *group*),
    b. deverbal nouns that acquire a collective sense through metonymy (e.g. *association*).
2. nouns which acquire "the status of collective nouns" through recategorisation rules. The status is "acquire[d] in context", where the noun is "recategorised as a collN" (Borillo 1997: 116, 119).

Lammert (2010: 333–335) follows Borillo (1997), though she does not mention the case of socio-economic sectors (*football*) or proper names (*SNCF*). She describes Borillo's subcategory 2 as "a collective facet at work in 'non collective' nouns", as

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5.   Borillo (1997) argues that the relation *institution:members* is one of meronymy, but this may be regarded as a type of metonymy, viz. 'part-whole metonymy' (Dancygier & Sweetser 2014: 101).

6.   All the labels cited here are my translations from French.

"collective reference". In her conclusion, however, she shortens the label to "collNs by metonymy" (Lammert 2010: 340), meeting Gross (2008), because she considers that the metonymic, collective facet cannot really be dissociated from the lexical content of the noun.

It is proposed here that retaining the distinction between "collective reference" and "collective noun" would have given an even better understanding of the category. Applying the analyses above to English and looking deeper into the workings of recategorisation, the present study concludes that the boundaries of the class of collective nouns should in fact be narrower than proposed by Borillo (1997) and Lammert (2010). This is what § 3.1.4.2 addresses now.

3.1.4.2   *Exclusions from the class of collective nouns*

This subsection seeks to show from further tests and theoretical considerations that most of Borillo (1997)'s category 2 nouns (typology in 3.1.4.1 above) should be excluded from the class of collective nouns. NPs such as *Mozambican football (is in mourning), the whole street (thought …), the hospital (want to discharge her)* or *SNCF (issued a statement)* have collective reference due to a facet activated in context (in other words, they denote pluralities of entities), but the nouns themselves do not become collective.

First of all, despite the plural reference of the NPs, these nouns do not allow for the same glosses as all the other collective nouns mentioned in Borillo's typology (whether collective-only or with a collective sense). The other collective nouns license the following tests for count collective nouns (reproduced from § 1.3.1):

a.   *An X is/can be composed of units Ys*
b.   *A unit Y can be part of an X*

For instance, *an association is composed of members/people*, and *someone can be part of an association*. This is logical: a collective whole being the result of a grouping operation, it denotes a *single whole* composed of *several units*. Nouns such as *football*, *street*, *hospital* or *SNCF*, on the other hand, fail those tests; for instance, *SNCF (/British Rail) is composed of [people] / *this employee is part of SNCF (/ British Rail).

Moreover, these nouns may not be modified by property-ascribing adjectives to qualify either the plurality of people or the people individually. It may be argued that this is because the reference is to unique wholes – there is only one company called SNCF, and so on, but the problem also concerns common nouns such as *street* or *hospital. A big street* or *the old street* may only construe the street as a spatial entity, not as a big/old group of people: *a big street* cannot mean that there are many people in it. Similarly, *a big/old hospital* would have to refer to the building. Among

the nouns in category 2, the word *football* stands out as particularly different: the NP it heads does not license hybrid agreement (*football are …), unlike NPs headed by nouns that denote economic sectors (*the dairy industry are scared*), institutions or recategorised place names (e.g. *street* when modified by *whole: the whole street were talking about the news*, Google Books, 2010). Moreover, it has a non-count feature.

Why these differences? The characteristics of these category 2 nouns are due to the way the collective facet emerges in context. The framework used here is Construction Grammar, which itself builds on frame semantics. All the cases of metonymy studied here are cases of "frame metonymy", that is, "one reference to an element of a frame is used to refer to either the frame or to other associated elements of the frame" (Dancygier & Sweetser 2014: 101). Fauconnier and Sweetser (1996), who introduced the concept of frame metonymy to deal with examples such as *the ham sandwich wants his check*, show that *the ham sandwich* does not freely use a part (the ham sandwich) to refer to the whole (the customer); both the sandwich and the customer are part of the same frame, and it is because that frame is available to addressees that it is metonymically possible to use the meal for the customer (Marmaridou 2013: 85). This process is particularly obvious with proper names: proper names, unlike common nouns, depend less on category structure for their conceptualisation, so that the frames they call up rely very heavily on contextual knowledge (Dancygier 2009: 161). For instance, depending on the frame, *Paris* may refer to the French national government (*Paris and Berlin agree …*), to the fashion industry (*Paris brings out new longer skirt lengths*), the city as physical space (*Paris is on both banks of the Seine*), the city government (*Paris puts more street cleaners to work*), and so on (Dancygier & Sweetser 2014: 108). When producing or interpreting a message, speakers make connections between elements of the frame, and from these, can exploit linguistic forms metonymically (Dancygier & Sweetser 2014: 109).

Consequently, rather than consider that the collective facet is part of the lexical content of the *noun*, it should be concluded that the collective facet is available from the *frame* of which the element usually denoted by the noun (e.g. a city, for *Paris*) is an element. In the same way, nobody would consider that *sandwich* is an animate noun, or has an animate facet at lexical level, just because it is often used to refer to a customer in the context of a restaurant. It is from the frame and the cognitive connections established by the frame that the metonymy is derived; it is the NP as a whole that has collective reference through contextual metonymy, not the noun that has collective denotation. Some metonymic patterns are very common in discourse, and thus easily available (Lecolle 2002); it is the case for the relationship *institution:people*. As a result, any noun or proper name that denotes an institution may be used metonymically in an NP to refer to people in that institution.

In light of these analyses, it is now possible to reconsider Borillo (1997)'s typology, and to begin with, category 2. NPs such as *the (whole) street* or *SNCF* will be considered as NPs with collective contextual reference. This explains why they license hybrid agreement. But they are headed by non-collective nouns, and are not "collective NPs" by essence: they would not have a collective interpretation in contexts that did not trigger metonymy, and even at NP level, they do not license specific versions of tests (a) and (b): *the (whole) street is composed of [people], *the hospital is composed of patients and staff. *Football* constitutes a slightly different case: it does not just refer to a plurality of people (football fans, professionals, commentators, etc.), but more generally, could be glossed by *the world of football*. It is as if every*thing* in that world contributed as well – special articles in papers, etc. This explains why no property can be ascribed to the people (*football is angry / *football reacted / *football issued a statement), plural override agreement is impossible, and anaphoric *they* is impossible as well (Mozambican football is in mourning. **They will have fond memories of [so-and-so]). In other words, the people involved in football in some way or other are part of the frame, and perhaps made slightly more salient than other elements of the frame by the humanising predicate, but there is not a metonymic shift as with *the whole street* or *SNCF*. The NP has essentially singular reference, denoting a composite whole – a domain. The fact that *football* has a non-count feature contributes to this construal by the lack of bounding at lexical level. As for count *world*, like *street*, it is a non-collective noun that may head an NP with collective reference: *the world of football reacted …* is acceptable, but not *the world of football is composed of [people] / *football players are part of the world of football; *the small world of football* does not mean that there are few people in it – only that metaphorically speaking, it occupies a small area, so that people tend to know one another.

Still among Borillo (1997)'s category 2 nouns, a few will be regarded as nouns with a collective sense, and moved to category 1: *parliament*, *senate*, and as borderline cases, *village* and *parish*. All have a collective sense in the OED (2018), and license gloss (a) above (e.g. *a parliament is made up of elected members / A Nunivak village is composed of small family groups / A parish is composed of people who individually are at different stages at different times*, Google search 2018). They also license *member* (*member of Parliament / of a senate / of a parish / of a village*), and seem to license gloss (b) (though some of the glosses may perhaps sound slightly odd): a senator is part of a senate, an MP part of a parliament, a villager part of a village, a parishioner part of a parish. What makes *village* and *parish* borderline cases is their combination with *big*, which does not straightforwardly yield the sense 'a large group of people', contrary to all count collective nouns. Compare *a big congregation* (it is big because it is made up of a large number of people) with *a big parish* (= 'a parish that covers a large area', and only as a result, 'a big group of

parishioners'), or similarly, *a big government* (many members) or *a small Parliament* (few MPs) vs. *a big village* ('a big place', and as an expected consequence, 'a big group of villagers').

Still, by contrast, nouns such as *town*, *hospital*, and probably *university* and *school* are clearly not collective: they fail gloss (a) (e.g. ??*a town is composed of [people]*) and do not have a collective sense in the OED (2018), in addition to combining with *big* without a straightforward 'large group of people' sense. Rather, people are just some of the components in the associated frame; collective reference stems from context-activated metonymy.

As regards category 1 of Borillo (1997)'s typology, dictionary definitions confirm that in English as well, some nouns are collective-only (e.g. *clientele*) while many others only have a collective sense, and are therefore polysemous. As in French, the collective sense is typically not the original sense. Category 1b, though, appears too restrictive for English: deverbal derivation is not the only means through which to obtain collective senses. *Episcopate* (the bishops regarded as a collective body), or *board*, for instance, have taken a collective sense through metonymy, but not from a verb.

3.1.4.3   *Summary: Types of 'collectiveness' and consequences for hybrid agreement*
In light of the analyses carried out above, the present study yields the following boundaries for count collective nouns, which correspond to cases 1a and 1b:

1. collective nouns:
    a. collective-only nouns (e.g. *committee*): the dictionary only has collective definitions, at least for contemporary English.
    b. nouns with a collective sense (e.g. *association*): they, too, have a collective dimension at lexical level, though not in the whole lexical material of the noun.
2. NPs with collective reference, headed by non-collective nouns (e.g. *the whole street*, *the hospital*, *SNCF*): a metonymic shift in context (though based on culturally engrained frames) gives the NP collective reference, but the noun itself is not collective, as it does not have a collective facet at lexical level, and the NP may have non-collective reference in other contexts. The list of non-collective nouns that may head NPs with collective reference is endless, and will automatically include any proper name of institution, place or time if the frame activated in context allows it. Collective reference is then due to a metonymic shift at NP level; these are common for humans because they are cognitively salient: similarly, what Kleiber (1991: 7) calls "gregarious *they*" is very common, as in *at the hospital, <u>they</u> told me …* . Such uses are infrequent for animals, and non-existent for inanimates.

Even the NPs in (2) license hybrid agreement, though with varying degrees of frequency – with place names and economic sectors, plural override agreement appears particularly uncommon, and *street*, for instance, seems to require *whole* to foreground the individuals sufficiently for plural override. Hybrid agreement, therefore, signals collective reference at *NP level*, not a collective feature at noun level.

3.1.5 'Units of the same type' not found to be a prerequisite

The semantics-based literature on collective nouns converges in considering homogeneity of the parts of the collective whole (at least of their constitutive parts, Lammert 2010: 151) as a definitional feature. This, however, will not be regarded as a theoretical prerequisite here, because it seems to be based more on tradition than on theoretical arguments.

In the existing literature, the first justification for the status of definitional feature is nominal typology (Flaux & Van de Velde 2000: 60): homogeneity of parts distinguishes collective nouns from "nouns that denote individuals composed massively of homogeneous parts", such as *livre* 'book' or *train*. This has syntactic consequences: while French collective nouns take *de*-complements ('of'), nouns such as *livre* 'book' take *à* ('with'). A similar distinction may be made for English: *a committee of experts* vs. *a book with a red cover* (*a book of cover, *a book of pages). It will be argued here, however, that this typological distinction may be established without having to use the argument of homogeneity of parts: as mentioned in Chapter 1 (§ 1.4.2), a book is simply not *construed* as a number of leaves brought together. It is viewed as a componentially complex entity; neither the leaves nor the cover have the status of *units*.

The second justification, pointed out by Lammert (2010: 97) in the wake of other linguists, is that like mass nouns, count collective nouns license homogeneous cumulative reference: *a bouquet + a bouquet* may form just *one (bigger) bouquet*, just as *water + water = water*. This is due to the homogeneity of parts, for both masses and collective wholes. Again, however, this argument does not seem necessary: as Lammert (2010: 97) also points out, merging is not compulsory with collective wholes, whereas it is for masses: *water + water* has to yield *water*, whereas *a bouquet + a bouquet* may also yield *two bouquets*.

Not only is the homogeneity of parts feature dispensable, it is also potentially problematic. First, homogeneity does not exclude qualitative differences, obvious in *a disparate group of individuals* (Arigne 2006: III.1) or even with collective nouns that have a more specific meaning, such as *committee* (*a motley committee*). Secondly, an *of*-complement does not guarantee a single type, either:

(1)   Scott Cook, the director of academics at the Idaho State Department of
      Education, who helps lead <u>a committee of teachers, parents and scientists</u> urging
      that climate change be included in the standards.   (Albeck-Ripka 2018)

It could be objected that the individuals that compose the committee may all be
subsumed under the term *members*, but this is not the perspective here, and it
could be said that any form of grouping, whether through collective nouns or other,
involves a measure of homogenisation anyway – otherwise, why consider the units
together? Even *odds-and-ends*, for instance (which is not collective, but denotes
a plurality of units – see Chapter 6), although it implies very diverse elements,
presupposes that they are all small concrete objects that cannot be put away with
others of the same kinds. This is a form of homogenisation.

3.2   Boundaries of the class of count collective nouns for humans

Section 3.1 has established that human count collective nouns share the following
construal properties:

–   they denote a whole composed of units, obtained as a result of a grouping op-
    eration; as such, they are acceptable in phrases (a) *An X is/can be composed of
    units Ys* / (b) *a unit Y can be part of an X.*
–   the plurality is bounded at lexical level, and consequently, the whole has at least
    one non-additive property (though nouns differ in their degree of permeabil-
    ity); this is due to the /count/ feature in the noun.
–   'collective nouns' is taken as an umbrella term for collective-only nouns and
    nouns with only a collective sense. All have a collective dimension at lexical
    level. They must be distinguished from context-based metonymy, which may
    give an NP collective reference without the head noun being collective.

The aim of the present section is to draw a list (at least a tentative list) of human
count collective nouns in English. In order to do so, the study first considers two
nouns that deserve further analysis: *enemy* and *race*. The last subsection proposes
an actual list of count collective nouns for humans.

3.2.1 Exclusion of *enemy*

Enemy is regarded as a collective noun by Huddleston and Pullum (2002: 503)
and Pennec (2008: 4), possibly because it licenses hybrid agreement (*the enemy is/
are …*) – plural agreement is so common that it is mentioned in the OED (2018).

A closer look, however, shows that it must be excluded from the class of collective nouns. First, in the singular, the anaphoric pronoun is not *it*, but *he*, as in the following extracts:

(2)   Should the enemy be found formed in order of battle with <u>his</u> whole force, I shall notwithstanding probably not make the signal to form the line of battle.
(Naval log book, 1808-1810, from Gardelle 2006: 143)

(3)   War is very dynamic. It changes continually, because the enemy is changing <u>his</u> strategy as well.   (2010, COCA, Davies 2008–)

This difference reflects a major difference in construal: with singular agreement, the enemy is not viewed as a group, an inanimate whole, but subsumed as one single individual. This is a case of "number synecdoche" (Flaux 1999: 492, following the Aristotelian tradition), and a common way of viewing the enemy. For instance, in the traditional Irish song 'Waltzing Mathilda', the Turkish attack in the battle of Gallipoli is described as follows:

(4)   […] Johnny Turk, he was ready, he primed himself well. He rained us with bullets, and showered us with shell. And in five minutes flat, he'd blown us all to hell. Then he blew us right back to Australia. […]

Consequently, unlike animate count collective nouns, *enemy* fails tests (a) and (b): ??*The enemy is/are composed of …* / ??*A soldier may be part of the enemy*. Moreover, an attributive adjective with properties of size or age may not be non-additive: *a big enemy* cannot signify 'many soldiers'.

3.2.2 Exclusion of the taxon/exemplar relation: The case of *race*

The term *race* is not specific to humans, and is controversial for humans today due to the racist undertones; but the term will be addressed here nonetheless because it does apply to humans as well, so that it must be considered for the list to be proposed at the end of § 3.2. References to animals are included in order to get a full picture of the construal conveyed by the word.

Is *race* a collective noun? The few studies that mention it include it: Persson (1989) and Levin (2001) for English, Lecolle (2008: 323) for French. A closer look, however, shows that while the uses studied by Lecolle indeed illustrate its collective sense, the noun often has a taxon sense, which is not collective.

The collective sense can be identified by several tests. The OED (2018) uses *group* as a defining term in sense 1 of the word ("A group of people, animals, or plants, connected by common descent or origin"). In extracts (5) and (6) below, *race* could be replaced by *group*. The whole has non-additive properties of 'age' (*an*

ancient race does not entail *ancient individuals*), and the noun may also take properties that apply to the individuals (*an angry race*). Tests (a) and (b) are felicitous (*a race is composed of individuals / individuals are part of a race*). Finally, the noun licenses *members* (e.g. *members of an inferior race*), as well as hybrid agreement (6):

(5)   A race of brain creatures <u>rules</u> the city, sapping the wills and minds of newcomers […]   (1986, BYU-BNC, Davies 2004–)

(6)   Some 80% of the Chinese are Han, a number larger than the total of Caucasian races (Grolier Inc., I 978). This single race of people <u>have</u> veto power at the United Nations. They have centralized planning […].
                                                             (1997, COCA, Davies 2008–)

Race, however, is clearly not a collective noun in the following extract:

(7)   The race of man <u>is</u> suffering, and I can hear the moan.
                                                             (1993, COCA, Davies 2008–)

The noun in the *of*-complement is in the singular (*man*), although this is archaic for humans nowadays; such a singular would be impossible with collective nouns (e.g. *an army of soldier_). In addition, substitution of *race* by *group* is impossible (*the group of man), as is plural override agreement (*the race of man are suffering). The same problems arise when *race* is in predicative position with a singular subject NP, as in (8), a configuration which would be impossible with collective nouns (8′):

(8)   The white-tufted grebe is a race endemic to the Falklands […].
                                                             (1991, BYU-BNC, Davies 2004–)

(8′)   (compare:) *The British soldier is an army […]

In (7) and (8), there is no plurality of entities in the mental representation. With *the* + singular, the white-tufted grebe is perceived as a "unique variety": it is a case of "definite singular generic" (Lyons 1999: 188). This is because to belong to a *race*, an individual has to have the required defining features; it does not co-exist with others in a *group*, but in a *class*. In this sense of the word, a race is an informal taxonomic rank in the hierarchy of living beings (along with *order*, *genus*, *species* and so on), and the real-life individuals that belong to that race are *specimens*, exemplars. In this representation, *white-tufted grebe* and *man* have a *taxon:exemplar* relation to the individuals in the class (white-tufted grebes and men).

This difference in construal between collective and taxon uses of *race* is confirmed when looking at loss of members. If a number of *soldiers* get killed, the *army* gets smaller; or if some *members* of the clergy resign, the *clergy* loses members. But if some *grebes* are killed, the *race* does not get smaller or lose members – only the number of specimens decreases. A second test is the *be* relation: grebes *are* a race (whereas soldiers *are not* an army).

From this, I conclude that when used in conjunction with a singular noun (either in an *of*-complement, or in subject position if *race* is part of the predicative complement), *race*, like *species* (or, as below for animals, *breed*), is not a collective noun, but a taxon noun. It denotes a class, not a group, and the individuals that belong to that class are specimens rather than parts. The reason why *race* is more often collective for human beings, reflecting a shift from class to group, is cultural: race may be regarded by those who use the concept for humans as a basis for carrying out collective action as a community: members of a race are then thought to be acting as a lobby, typically with dark aims (as in (5) or (6) above).

3.2.3 Inclusion of underdetermined nouns (e.g. *group*)

As noted in the introduction to this chapter, underdetermined nouns (Lammert 2010: 359) are those which do not imply a privileged nature for the units of the collective whole. Examples are *group*, *collection* or *myriad*. They differ in this respect from most count nouns that denote pluralities; for instance, in a literal sense, an *army* involves *soldiers*. The nouns that obligatorily occur in binominal NPs, such as *myriad*, will be considered in § 3.5; the present subsection addresses the handful that may be used without an *of*-complement. Again, they are not specific to humans, but will be addressed here because they also concern humans.

The present study, following Flaux (1999: 475) and Lammert (2010: 341ff), concludes that nouns such as *group* or *collection* are collective nouns ("generic" ones for Flaux, "meta-collective" ones for Lammert). Underdetermination is not grounds for excluding them, because as evidenced by their capacity to occur without an *of*-complement, underdetermination does not entail a lack of conceptual autonomy. Moreover, when they occur without an *of*-complement, they show a default preference for either humans or inanimates, that is, they do have a preferred association with a given nature of units:

–   *group*, *gang*, *pair* are by default associated with humans, whereas *set* is by default associated with inanimates. This is evidenced by the following sentence: *I saw a _ that I liked*. With *group*, *gang*, or *pair* (without an ellipted *of*-PP), the sentence is odd, because an unfamiliar group of people is not something that one normally expresses taste about. With *set*, the sentence is not problematic because it is expected to apply to objects – such as tableware.
–   *assortment* and *collection* without an *of*-PP are only used for inanimates, not humans. Consequently, they are not included in the list of human collective nouns in 3.2.4 below, but are part of the list of inanimate ones in § 3.4.

3.2.4 A list of human count collective nouns

3.2.4.1 *Data collection procedure*
The following remarks apply to human nouns as well as to all the nouns under study.

There is to date no list of collective nouns for English. Lammert (2010) has established one for French, but of course the nouns do not always pattern similarly in the two languages, and the theoretical conclusions made in the present volume argue for a narrower definition of collective nouns than that proposed by Lammert (2010).

The initial step was a full-text search of the OED in 2014, using the strings *collect* (670 hits), *collective* (432) and *collectively* (1889). The hits were reviewed manually; unfortunately, they did not include a number of relevant nouns given as examples in the literature, and gave a surprisingly high number of irrelevant results. For instance, *Adirondack* preceded by *the* and with plural agreement of the verb is defined as "this people collectively", whereas this is just an NP in the plural with an uninflected plural (cf. *the sheep have …*).

The full-text search was therefore extended to *a set of* (797 hits) and *a bunch of* (42), which returned slightly better results, but necessarily incomplete (*set* and *bunch* are not the defining terms for all collective nouns), and again, with a lot of irrelevant words – which is why, given the huge amount of time needed to review the results for only meagre results, the search was not extended to *group* or other general terms. For example, *accommodation ladder* was defined as "a set of steps giving access from one deck to another, or used to board a ship", but the noun is of course not collective, as it does not construe the steps as units – only as components. The same problem occurred with *basis*, defined in sense c. as "a set of principles laid down or agreed upon as the ground of negotiation, argument, or action" (e.g. *to have a basis for our discussion*), or with *creed*, *ideology*, *moral* or *mythology*.

The relevant results from the OED searches were further augmented with all the nouns given in the literature on English and French (taking into account their possible English translations). Each noun was reviewed in light of the analyses carried out earlier in the volume, and irrelevant nouns were discarded. The resulting list will probably be missing some nouns, but hopefully, it is large enough to serve as a reliable basis for databases and future exploration.

3.2.4.2 *A list of count collective nouns for humans*
The list, using the typology of collective nouns established in 3.1.4.2 above, distinguishes between collective-only nouns, and nouns with a collective sense. The majority are found to be in the second category, as metonymy is extremely common.

1. collective-only nouns: they are the prototypical collective nouns for humans: *army*, *band*, *battalion*, *bourgeoisie*, *brigade*, *cavalry*, *clan*, *class*, *clientele*, *clique*, *cohort*, *committee*, *crowd*, *dynasty*, *electorate*, *élite*, *faction*, *family*, *garrison*, *host* ('crowd'), *intelligentsia*, *jury*, *majority/minority*, *militia*, *mob*, *nation*, *populace*, *population*, *posse*, *proletariat*, *public*, *rabble*, *regiment*, *sorority*, *squad*, *team*, *throng*, *triad*, *tribe*, *troop*.

2. nouns with a collective sense, but not collective-only:
   * originally collective nouns which have taken a coerced aggregate sense to name members (e.g. *these clergy*, *five crew*, see § 4.1.3): (originally collective-only:) *clergy*, *crew*, *gentry*, *infantry*, *military*, *peasantry*, *people*, *police*, *tenantry*; (original collective sense only:) *faculty*, *laity*.
   * other originally collective noun: *choir* (which may also have a derived locative sense)
   * nouns whose collective sense is derived by metonymy from a non-collective sense: *administration*, *ancestry*, *aristocracy*, *assembly*, *association*, *audience*, *body*, *board*, *brotherhood*, *cast*, *church*, *club*, *coalition*, *college*, *colony*, *commission*, *commune*, *community*, *company*, *congregation*, *congress*, *coterie*, *council*, *couple*, *delegation*, *duet*, *duo*, *ensemble*, *episcopate*, *Establishment*, *fellowship*, *fraternity*, *generation*, *government*, *harem*, *household*, *lobby*, *multitude* ('throng', e.g. biblical uses: *the multitude cried out*), *nobility*, *opposition*, *orchestra*, *order*, *organisation*, *parliament*, *party*, *peerage*, *press*, *procession*, *quartet*, *queue* (primarily collective, but it may also mean 'tail'), *quintet*, *race*, *readership*,[7] *senate*, *society*,[8] *staff*, *trio*, *triumvir*, *triumvirate*, *(trade) union*, *viewership*, *youth*, + ?*parish*, ?*village*.

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7. The original sense of *readership* is "the quality or state of being a reader" (Merriam-Webster 2018; see also OED 2018), and is still given by Merriam-Webster (2018) as the primary sense. Note also that in addition to the collective sense, *readership* (and similarly *viewership*) has non-count uses that may be glossed as the "total number of (regular) readers of a periodical publication" (OED 2018), as in:

a. Readership: <u>Readership</u> is defined as the number of people who actually read a newspaper and is arrived at by asking people whether they have read a newspaper over the last days or another time period. (2010, Google Books)

b. The latter determines the size of the audience by measuring the number of daily site visits, which is an indication of <u>readership</u>. (2009, Google Books)

Non-count *readership* (or similarly, *viewership*) does not denote a plurality: it may not be glossed as 'a body/group of readers', and denotes a rate, a number, rather than a plurality of people.

8. As mentioned by Depraetere (2003) (see § 2.3.3), agreement is now always in the singular in the sense 'people in general' (e.g. *our society*). But the noun licenses hybrid agreement in the sense 'company', as in the following: (1836, Google Books) "My Lords, a great number of those

3. collective nouns that are not specific to humans: (collective-only:) *gang*, *group*, *pair*, *set*; (collective sense:) *company*. This list does not yet consider nouns that only occur as N1 in the binominal construction *[determiner] N1 + of + N2-s*. These will be considered along with other N1s in binominal constructions, in the last section of this chapter.

The study now turns to count collective nouns that are specific to pluralities of animals.

3.3 Boundaries of the class of count collective nouns for animals

The only well-established fact for these nouns is that hybrid agreement occurs, but is uncommon (e.g. *the pack have succeeded in cornering the stag*, Cruse 1986: 177). This is an effect of the Animacy Hierarchy (Corbett 2006: 211). Beyond this, collective nouns for animals are very rarely mentioned in linguistic research. Conversely, whole books (e.g. Collings 1991; Asper-Smith 2010; Palin 2013), websites and newspaper articles for the general public are devoted to 'collective nouns' that denote pluralities of animals, to marvel at the wealth of improbable nouns in English, such as *a conspiracy of ravens*. For example, Williams (2010) starts an *Independent* article as follows:

(9) An aurora of polar bears, an ostentation of peacocks, an embarrassment of pandas … . Collective nouns, the terms used to describe a group, can be an imaginative bunch. We're used to herds or flocks or even gaggles, but some of the lesser-known collective nouns for animals seem fabulously unlikely (a fact that's even acknowledged within the phrase 'an implausibility of gnus'). They are the stuff of pub quizzes, late-night conversations with friends – and a boon to writers who want to enliven their prose.

Not all such nouns are for animals (Rhodes 2014 gives examples for humans, such as *a damning of jurors* or *a misbelief of painters*), but most of them are. The aim here is not to give a full list of such terms, which make whole books, but to examine whether all of them are actually collective nouns. It will be argued that although they all denote pluralities of entities in the binominal construction, very few of them are collective.

Another question, in light of the analyses carried out for *race* earlier in the chapter, will be whether to include nouns such as *breed*, *fauna* or *animal kingdom*, which relate to species and the like. These nouns are totally ignored in existing studies.

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instances that occur throughout this book, of the way in which this Society have been acting, have been already stated to your lordships."

These issues are examined in turn, in this order; the section ends with a tentative list of count collective nouns for animals.

3.3.1   From *flocks* and *herds* to *auroras* of polar bears: Are all these collective?

3.3.1.1   *Preliminary overview of count nouns used to denote pluralities of animals*

The nouns considered here all stand in the construction *Det + N1 + of + N2-s* to denote groups of animals in the same space. Only seven of them are extremely common; they are not species-specific, but are specialised for types of species (OED 2018):

– *herd,* in a narrow sense, is used only for cattle; in a broader sense, it may be used for any other mammals "travelling together", such as elephants, antelopes, seals, whales, porpoises … and most dinosaurs.
– *flock* is mainly used for birds, especially geese, but also for sheep and goats.
– *horde*, defined as "a moving swarm or pack", foregrounds high numbers and packed animals.
– *pack* may apply to all sorts of animals, but it is more common for hunting dogs and wild animals.
– *swarm* is used for bees and other insects, such as crickets and cockroaches.
– *shoal* applies to fish and other sea animals – seals, whales and so on.
– *school* is used for fish and sea mammals (such as whales or porpoises), as well as for many birds that fly in flocks.

These nouns show that folk divisions of the animal kingdom are not straightforward: while sea animals, or insects, tend to be grouped together, size may be an interfering factor (*herd* includes big sea and land mammals, but excludes other mammals such as sheep and goats), while *school* applies to both birds and sea animals. Occasionally, the same species may take more than one N1 to denote the group: for instance, *a herd/shoal/school of whales* – similarly, for less frequent nouns, *a gaggle/flock of geese* or *a dray/scurry of squirrels*.

Most other nouns are species-specific: *covey* is used mainly for partridges (sometimes also grouse or ptarmigan), *pride* applies exclusively to *lions*, *gaggle* to *geese* (in the animal kingdom at least). This holds also for all the 'unlikely' nouns that make books of collective nouns, as in *an aurora of polar bears*, *an exaltation of larks* or *a parliament of crows*.

While all these nouns are treated on a par in compendiums of collective nouns for the general public, they have very different origins, which, as is going to be shown now, has consequences on their linguistic status.

3.3.1.2   *Only a minority of these nouns are actually collective*

The list of seven very common nouns above share one feature: they have always had a collective-only meaning, either the one they still have today (*herd*, *swarm*) or with adjustments in the course of time – *flock* initially meant "an assemblage of persons"; *shoal* and *school* both relate to a Dutch word meaning "a company";[9] *horde* is a borrowing from Turkish meaning "a camp", and was first used of humans (Tartars and other Asiatic nomads, OED 2018), then transferred to animals; *pack* is probably borrowed from Dutch, originally for "a bundle (of things)". Moreover, they share the construal noted for human count collective nouns: they pass the tests (a) *An X is/may be composed of units Y* / (b) *A unit Y can be part of an X*; they license non-additive qualities of age and/or size (e.g. *a big flock*). The NPs they head may trigger plural override agreement; for instance, *the flock have their winter coats removed using both modern and antique shearing methods* (2018, berkshires.org). Similarly, anaphoric *they* may be used: *The swarm had left the rubble, and their new home stretched far beneath the earth* (2006, Google Books).

Conversely, the vast majority of so-called "collective nouns", or "company names" (Sacher & Woop Studios 2013: 10), are in fact not collective at all. The 15th century saw a fashion for so-called collective nouns, due to Books of Courtesy, those handbooks on various aspects of noble living (Rhodes 2014). One of them in particular, the highly popular *Book of St Albans: Containing treatises of hawking, hunting, and cote armour* (Barnes 1486), written in verse and attributed to Dame Juliana Barnes (sometimes spelt *Berners*), was very influential. It contained a number of collective nouns for "companies of beasts and fowl" used in hunting, but added a list of nouns outside the field of venery which were not actually used, researchers think, but were rather a sarcastic note on society (e.g. *a skulk of friars*, *a superfluity of nuns*, Sacher & Woop Studios 2013: 11). Later writers mistook them for 'real' collective nouns and included them as such in compendiums. Cossins (2017) considers that the *Book of St Albans* "precipitated the adoption of collective nouns into Standard English and, over the years, also resulted in the invention and addition of many more". In the 20th century, American author James Lipton's highly popular *An Exaltation of Larks* (1993, first edn 1968; sold by Penguin Books in the "humour" category) marvels at the poetic creativity in the terms, and invites readers to coin their own. One recent creation is *flange* for *a flange of baboons*, which Martin (2009) traces back to "an old episode of *Not the Nine O'Clock News*". It apparently made its way into the OED's AskOxford dictionary at the time (Martin 2009), though in 2019 neither the OED, nor the online Oxford dictionaries seem to have it.

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9. Note that *school* in this sense is not related to *school* "establishment for education", which is of Latin origin (OED 2018).

These 'unlikely' nouns have a variety of meaning relationships with the nouns that denote the animals. Rhodes (2014) and Cossins (2017) note onomatopoeia (*a gaggle of geese*, from the verb *gaggle* 'chat, gabble' and 'one of the many artificial terms' invented in the 15th century, OED 2018); habitat (*a descent of woodpeckers*) and more generally place (*a bench of aldermen*, *a cache of ammunition*); the use they were put to by humans (*a yoke / team of oxen*); or typical behaviour (*a leap of leopards*, *a busyness of ferrets*) – to which we may add, any positive or negative quality (*a superfluity of nuns*). Individual cases may have specific motivations; *a parliament of owls*, surprising since owls are solitary animals, is apparently a variation on Chaucer's *a parliament of Foules* (Sacher & Woop Studios 2013: 142). Finally, some are of dubious motivation, such as *an aurora of polar bears*, for which I was unable to find an explanation – is this perhaps because the views are most spectacular at dawn, due to the light?

Beyond this diversity, what the present study adds is that for many of them, the noun results from a nominalisation of a predicate, of which the N2 is the semantic subject: for example, *a gaggle of geese* (from 'geese gaggle'), *a leap of leopards* ('leopards leap'), *a busyness of ferrets* ('ferrets are busy'), *a superfluity of nuns* ('nuns are superfluous'), *a condemnation of jurors* ('jurors condemn') or *a pride of lions* ('lions are proud'). This is very different from the meronymic relationship between standard collective nouns and the unit nouns (cf. *a committee of experts*, *a herd of elephants*), and explains why, typically, the N1 may not stand on its own, without an *of*-complement. Only the handful that have spread through language allow this: *pride*, *gaggle*, and *skein* (from a 'string' of yarn, for ducks), as in (10) and (11) below, and of course *team*, which is not specific to animals now, although this is the original use of the word.

(10)   Still the fowlers kept on firing, hoping that a lucky pellet might bring a hapless goose down, but it did not, and the <u>skein</u> flew on unscathed.

(2010, Google Books)

(11)   Finally everyone was sorted out and I was ready for a few hours rest. However as I rearranged the sheep I had become aware that the <u>gaggle</u> was protesting about something. I ambled over to investigate. As usual the honking was reminiscent of a bicycle convention as I approached and the geese scrambled to register a formal complaint.   (2003 [1993], Google Books)

These few nouns are collective, licensing tests (a) and (b) and adjectives for the whole as well as for the units (e.g. *a big gaggle / an angry gaggle*).

Also collective are the nouns that are extended to animals from the human realm, such as *family* in *a family of porcupines*, or even the metaphoric *parliament* in *a parliament of owls*: a sentence such as *this very special parliament is composed not of men, but of owls*, would probably be acceptable.

On the other hand, none of the other nouns in compendiums, it is argued here, are collective: *busyness* or *leap*, for instance, do not on their own denote a plurality; it is only as a result of the construction *Det + N1 + of + N2-s* ("*N2-s*"= count noun in the plural) that the /plurality/ feature emerges. None of the books consulted actually lists N1s only; they are always cited within the NP (e.g. *an armoury of aardvarks*). Similarly, it is at NP level that tests (a) and (b) might be regarded (at least, are intended to be) felicitous (e.g. *A busyness of ferrets is composed of ferrets / A ferret may be part of a busyness of ferrets*, vs. *A busyness is composed of ferrets / *A ferret may be part of a busyness), even though they sound odd when the NPs are not actually used in language. This is all the more obvious with NPs such as *a bench of aldermen: bench* on its own only denotes a "long seat" (OED 2018), and it is as a result of the construction that it takes on a 'plurality' facet in context. In conclusion, the N1 is not collective, but the NP as a whole has collective reference. It is intended to form a collective NP by those who coin the phrases, but exploits a different coinage pattern from collective nouns, namely, the *Det + N1 + of + N2-s* construction.

Should the construction be regarded as a "collective construction", then? Its productivity for inanimates, which § 3.4 considers in more detail, suggests a more abstract, also more powerful, semantic contribution: I propose to call it the "organised plurality construction"[10] (see § 3.5.1 below for a discussion of the term in relation to "pseudo-partitives"). A collective whole is only one possible result. The construction organises semantic roles as follows – "organising principle" is to be understood as the motivation for considering the units together, as a plurality (Gardelle 2019):

(12)   The organised plurality construction

Det + N1 + of + N2-s

organising   nature
principle   of the units
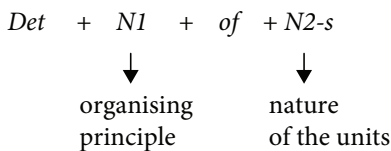
Note that the same syntax may correspond to other constructions (which will be regarded as homonymous): *a meeting of delegates*, for instance, does not denote a plurality, but an occasion.

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10. With a number of inanimates, such as *profusion*, test (a) is impossible: *a profusion of flowers is composed of flowers.

3.3.2 Exclusion of the taxon/exemplar relation: The case of *breed* and *species*

3.3.2.1 *Literal uses for animals*

In § 3.2.2 above, *race* was shown to have a collective sense when associated with the plural (*the race of men*), but a taxonomic sense when combined with the singular (*the white-tufted grebe is a race …*). *Breed* and *species* are found to work very much in the same way. The study starts with *breed*.

When *breed* combines with a singular noun, it is not collective: like *race*, it is a taxonomic noun, so that the plurality is at class level (hyperonymy), not group level (meronymy). For instance, in (13) and (14) below:

(13) Buy a badge now with a dog's head on depending on the <u>breed</u> of dog you've got, and it says on it *I live here*.   (ca. 1990, BYU-BNC, Davies 2004–)

(14) The Dobermann has been the focus of much controversy since being introduced to Britain 50 years ago. The Dobermann is a smart-looking <u>breed</u> of German origin. Standing about 27 inches at the shoulder, the Dobermann is usually black and tan in colour, but can be bred in any of four other colours.
(1992, BYU-BNC, Davies 2004–)

Extract (13) illustrates a *taxon:exemplar* relationship between *breed* and *dog* (see 3.2.2 above): a single animal is enough to say that someone owns a breed of dog (whereas one soldier, for instance, is not enough to make an *army*), and tests (a) and (b) fail (*a breed is composed of dog/of a dog; *dog/*a dog is/may be part of a breed). At generic level, a gloss in *be* is possible: in (14), *the Dobermann is a […] breed […]*. The breed is defined abstractly, as a set of characteristics; the individuals are *specimens* of the breed, not *members*. Similarly, phrases such as *cross the breed* or *owners of the breed* do not show collective senses for *breed*.

For animals, *breed* is used mostly in combination with singular nouns: *breed of pony, cat, pig, goat* and so on (BYU-BNC search, 2018). Combination with a plural N2, however, is found occasionally, together with hybrid agreement, as in (15) below. In this case, there is a shift in the sense of *breed*, from an abstract set of defining features to the set of individuals that have those features. The individuals are now *members of the breed*, and phrases such as *the dogs <u>in</u> the breed* (rather than *of*) are possible, as in (16); moreover, tests (a) and (b) are felicitous. Extract (17) below exhibits the two senses in the same passage:

(15) Males can easily father kittens from as young as five months, to over ten years. In regions where <u>the breed is</u> rare and expensive a long term breeding career for a pedigreed male can create a risk of Popular Sire Syndrome, in which one male has an overly large genetic influence on the breed. In Eastern Europe, where <u>the breed are</u> very common and inexpensive, this does not arise.
(2012, Google Books, book on domestic cats)

(16)   <u>Dogs in the breed</u> have a minimum of six toes on each paw, and Eva has seven
       on her front left paw.   (Salam, Stack & Whiteside 2018)

(17)   Even when behavioral diagnoses and pathology run in family lines, not all
       <u>members of the breed</u> *[collective sense]* are affected by the pathology, so it would
       be wrong and inappropriate to label the problem a result of the <u>breed</u> *[taxon
       sense]*, or a breed-associated trait.   (2013, Google Books)

A plural N2, however, does not automatically trigger such a shift. For instance, in
(18) below, *breed* is not collective: although the *–s* on *dogs* implies that Gar and
Trudy Sawtelle raise more than one dog, they do not raise the whole group that
makes the breed – only a sample. Similarly, the tests carried out above for collective
status are not felicitous.

(18)   On an idyllic plot of rural Wisconsin land, Gar and Trudy Sawtelle raise and
       train a remarkable <u>breed</u> of dogs recognized for their compassion and preter-
       natural intelligence.   (2008, COCA)

The same analysis holds for *species. Specimens of the species*, *a species of bird_* are
taxonomic uses, which leads Brems (2011: 364) to consider *species* a Type noun,
like *kind* or *sort*. But *members of the species* shows collective status, as does the oc-
casional phrase *a species is composed of individuals* (test (a) – 2002, Google Books).
An example of a collective use is (19):

(19)   an inventory of the behaviors that <u>members of the species</u> display in their
       natural habitats.   (2000, Google Books)

3.3.2.2   *Metaphorical extensions: Comparison with* kind *and* generation

With metaphors, whether for humans or inanimates, we reach the boundaries of
the class of collective nouns. With a singular N2, *breed* is of course not collective
(e.g. *this new breed of worker*, *a new breed of doctor/leader*, Google Books), but
shows a *taxon:exemplar* relationship. The classification issue is rather when N2 is
in the plural (e.g. *a new breed of builders; a new breed of lightweight, portable bench
saws*, Google Books).

    Unlike the literal uses, agreement of the verb seems to be systematically in
the plural, even when the determiner is singular (*a new breed of builders are …*,
not **is …*), and even for inanimates (as in (20) below), which shows that it is not
hybrid agreement. Rather, plural agreement reflects the fact that the semantic head
is now N2. This is what Huddleston and Pullum (2002: 501) or Pullum (2015) call
"number transparency" of N1: N1 is "transparent to verb agreement"; "the noun in
the *of*-complement determines the agreement", as a result of a form of "bleaching

syntactic potency" of the head noun (Pullum 2015).[11] As a result, the *of*-phrase is compulsory: *the breed is composed of builders/saws, *this is a breed, but of saws rather than of animals.

(20)   The latest <u>breed</u> of contractor saws <u>do</u> a great job with routine homestead projects and fine woodworking.   (2003, COCA)

Replacing *breed* with *group* is possible only because *breed* seems to have to be used with *new* or *latest* (no other occurrences could be found despite a thorough search), so that a limited number of saws, builders and so on are referred to. But the generic tests (a) and (b) are not felicitous, even at NP level (e.g. **a breed of contractor saws is composed of contractor saws*). It must be concluded that this use of *breed* is yet another instance of the *Det + N1 + of + N2-s* "organised plurality construction" (see 3.3.1.2 above) in which N1 is not itself collective. *Breed* is a taxon noun in metaphorical use.

In effect, *breed* stands in between *kind* and *generation. Kind* is purely qualitative (a "kind-referring" noun in the literature, e.g. Carlson & Pelletier 1995: 2), and so clearly never a collective noun; consequently, it normally has to combine with a singular N2 (*this kind of phone*, *these kinds of phone*), and when it licenses a number-transparent use, it remains invariable, with *kind of* acting more or less as a modifier for N2, which is the head (*these kind_ of phones*). *Breed*, in comparison, is more quantitative, due to its literal taxon sense, and retains slightly more autonomy within the NP: the determiner has to agree with it (*this breed of doctor(s)/phones*, **these breed_ of doctors/phones*), though as was seen, agreement outside the NP is with N2. By contrast, *generation* is a collective noun: *generation of phones* is found with plural, but also singular, agreement of the verb (the singular shows that *generation* may still be treated as a semantic head), and *generation* may still be found occasionally without an *of*-complement, allowing for *phones/doctors of that generation*, *third-generation phones* (compare **phones/doctors of that breed*).

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11.   Some linguists consider rather that *Det + N1 + of* forms a complex quantifier, with N2 as the syntactic, not just the semantic, head. To Biber et al. (1999: 248), for example, N1 becomes part of a 'quantifying determiner' (*a N1 of*). This extremely complex question will not be debated here, as it has little bearing on the categorisation of the N1 as collective or not. I rather arbitrarily follow the number transparency analysis. In a nutshell, Huddleston and Pullum (2002: 352) show that the problem with the division *a N1 of* is that *of* seems to work together with N2, not N1, in syntax: *students … a number _ prefer … (**a number of) / students, of whom a number_ prefer … (**whom a number of)* – see § 3.5.1 below as well for an overview of pseudo-partitives. This issue would have to be addressed against a broader set of cases, including so-called complex prepositions (*in front of*), which would be far beyond our scope. What matters for the study is that N1 is no longer the semantic head.

3.3.3   Inclusion of count uses of *fauna*

The present chapter is devoted to count nouns, or uses of nouns, so that non-count uses of *fauna* will not be addressed here – see § 5.4.2.

Count *fauna* (plural *faunas*) is found to be collective: it licenses tests (a) and (b) (as in (21) below), as well as *members of the fauna* (BYU-BNC). It was not found with plural override agreement, perhaps due to its rather abstract, scientific meaning. Unlike *breed* or *race*, *fauna* denotes the actual animals, not a set of abstract features; *the local fauna*, for instance, is co-referential with *the local animals*, where *the local breed/race* would only mean a breed originating locally – but some specimens of which may be found elsewhere. Besides, count *fauna* is non-additive: *large faunas* does not equate *large animals* – in one source, the authors specify *large faunas (in terms of number of species)* (1957, Google Books). Finally, as with other count collective nouns, count *fauna* may appear as N1 in binominal constructions in which the N2 gives the nature of the units, such as *faunas of ammonites* (1992, Google Books).

(21)   Manitoba's spider fauna is composed of northern, boreal and eastern elements and a few introductions. (Aitchison-Benell & Dondale 1997, Google Scholar)

3.3.4   A list of count collective nouns for animals

Extensions from the human domain, such as *family* or *parliament*, are not included here. The list is very short compared with humans, and most nouns are collective-only:

– collective-only nouns: *brood*, *covey*, *flock*, *gaggle*, *herd*, *horde*, *pack*, *shoal*, *school*,[12] *swarm*
– nouns with a collective sense: *breed*, *species*, *pride*, *skein*, and *fauna* (which also has non-collective, coerced, uninflected plural uses, e.g. *these fauna*, see § 5.4.2)

The study now turns to count collective nouns for inanimates.

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12. As mentioned in § 3.1.1 above, *school* for animals is not a metaphorical extension of *school* 'educational establishment'. The two words are only homonyms.

3.4   Count collective nouns that denote pluralities of inanimates

The only studies of English that show a strong interest in inanimate count collective nouns are Arigne (1998, 2005, 2006, 2010, 2011) and Gardelle (2014); for French, Lammert (2010) is to our knowledge the only one that seeks to establish a full typology. Elsewhere, the only recurrent issue for count nouns, as mentioned in the introduction to this chapter, is whether those that require binominal NPs (e.g. *an assortment* of chocolates) are collective. Binominals are examined in § 3.5, as they are not specific to inanimates; the present section considers nouns that may be used without an *of*-complement.

The leading question is, again, that of the boundaries of the class of collective nouns. Decisions follow the three defining features established earlier in the study:

– the noun denotes a plurality of units, which is construed as the result of a grouping operation. Tests (a) and (b) apply: (a) *An X is/can be composed of units Ys*, (b) *a unit Y can be part of an X*;
– the units and the whole stand in a part/whole relation;
– the noun denotes this at lexical level (in at least a sense, or possibly a facet, of its meaning).

A second question is whether count collective nouns share any further characteristics. So far, humans and animals have been found to share the following:

– hybrid agreement; this is known to be impossible for inanimates;
– a bounded whole at lexical level, which causes non-additivity (though with varying degrees of permeability);
– a possible gloss in *members of [the collective whole]* for the units.

The study first considers a series of difficult cases which require further comments (3.4.1). A reader who is not interested in word-individual analyses might want to skip the subsection and move on directly to § 3.4.2, which proposes a list of count collective nouns for inanimates, and will enable us to answer the second question.

3.4.1   Inclusions and exclusions: A closer look at potential problem cases

Arigne (2006, 2011) proposes to regard all the nouns in this subsection as collective (except perhaps for terms of duration, which she does not mention). While the list she proposes is extremely valuable, all the more so as she is the first ever to have tried to establish a typology for English, the conclusion reached in the present volume is that such a definition is slightly too broad. To Arigne (2011: 61), a noun is collective if it denotes a plurality of "items" (/ "sub-units") of the same kind, at

lexical level. This, it is argued, establishes the set of nouns that denote pluralities of entities (of the same kind); the definition of 'collective' further involves a *construal* as collective, that is, the whole has to be *construed* as the result of a grouping operation, and the units have to be *construed* as units. For instance, Arigne (2011: 91) includes *kit* as used in *a kit of parts*; this is not viewed as a collective sense here, because the parts are only parts (pieces with non-arbitrary boundaries, meant to end up forming a single object), not units. *Kit* does have a collective sense, but in a *tool kit*, for instance. Moreover, it is argued here that a number of collective interpretations noted by Arigne are in fact not collective senses, but effects of their insertion in discourse, in particular in the construction *Det + N1 + of + N2-s* (introduced in 3.3.1.2 above). These nouns are not collective; they are non-collective nouns used in the organised plurality construction (see § 3.5).

3.4.1.1   *Books and other written documents (e.g. 'anthology')*

The OED (2018) defines an anthology as "a published *collection*". It is concluded here, however, that *anthology* is not a collective noun; it only takes a collective interpretation when part of the construction *Det + N1 + of + N2-s*. In order to show this, let's reconsider the case of *book*. It was rejected as a collective noun (§ 3.1.5 above) because it does not construe the object as a plurality of units; rather, together with the cover, the pages are component parts (and nothing more than parts) of the resulting object. *Book* therefore only denotes a componentially complex entity. Yet when *book* enters the construction *Det + N1 + of + N2-s* (e.g. *a book of nursery rhymes*), the materiality of the book is backgrounded; the whole phrase may be glossed as *a collection of nursery rhymes published together*. This contextual interpretation becomes even more obvious if *whole* is added: *a whole book of nursery rhymes*, which yields a stronger 'collection' reading. Because the collective reading is only an effect of the construction, at generic level, *a book may be composed of …* (test (a)) may not be completed by *nursery rhymes*. The relationship between *book* and *nursery rhymes*, at lexical level, is *container:contents* – hence a "Table of contents".

The same analysis applies to all subtypes of books, such as *anthology*, *atlas*, *breviary*, *cartulary*, *catalogue*, *dictionary*, *directory* (cf. a telephone directory), *encyclopaedia*, *florilegium*, *formulary*, *garland*,[13]*glossary*, *herbarium*, *homiliary*, *hymnal/hymnary*, *legendary*, *lexicon*, *opus*, *syllabary*, *thesaurus*, *vocabulary*, *wordbook*. Although for some of these nouns (e.g. *anthology*), the notion of collection is more present than with *book*, the book itself remains in the construal; compare for example *this anthology contains a number of poems* and ??*this collection (/ collection*

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13.   In the sense: "*fig.* A collection of short literary pieces, usually poems and ballads; an anthology, a miscellany." (OED 2018)

of texts / set of texts) contains a number of poems. Several of these nouns end with the *–ary* suffix; originating in the Latin suffix *–ārium*, it means "a thing connected with or employed in, a place for" (OED 2018) – see for example *aviary*, *diary*, *granary* or *sanctuary*.

Moving away from books, we get to *database* and *corpus*. *Database* will not be regarded as collective: a data*base* is not just construed as a set of data, but includes supporting material: *base* denotes "a notional structure or entity conceived of as underlying some system of activity or operations; the resources, etc., on which something draws or depends for its operation" (OED 2018). This is reflected by definitions in Google Books (search query: "a database is"): besides a few occurrences of "a database is a collection of data", which appears to be a rather partial definition of a database, are mostly definitions such as "a database is simply an organised collection of information, such as a telephone directory, address book" (2006, emphasis added), "a repository for data" (2007) or "a structure that can store information [...]" (2011). Test (a) does not work very well either: the string "a database is composed of" often returns *tables* in Google Books. *Database*, it is concluded, may be compared to *catalogue* and other books – or to *file*: a database is construed as a container, not as a collective whole. *Corpus*, derived from Latin meaning 'body', may have the same sense, but it may also have a collective sense, when it denotes a set of documents; tests (a) and (b) are then felicitous, and the collective sense is available without an *of*-complement.

Finally, this subsection considers nouns that imply individual sheets, rather than books or computer files, as support: *inventory*, *list* and *questionnaire*. *Inventory* will be excluded: tests (a) and (b) are not felicitous. For the other two, when the supporting sheet is part of the construal, the nouns are clearly not collective: *a list with 95 names on it* (2000, COCA), *a questionnaire with 226 questions* (1990, BYU-BNC); *the items on the list*, *fill in a questionnaire* (*fill in a set of questions) (2010, Google Books). The list, or the questionnaire, are containers. For *questionnaire*, this is the only possible construal in the absence of an *of*-complement; the collective effect is obtained at construction level only. For *list*, on the other hand, the supporting material may be excluded from the construal: *the list on the board* (the board is not part of the list), *the items in the list* (rather than *on the list*). In this case, is it collective? The answer is difficult, but can be based on one specificity of *list* compared with all the collective nouns studied so far: *a list of products/people* is not equivalent to *a plurality of products/people*. The list only brings together the linguistic labels that name the products ("autonyms", Arigne 2011: 86). With *products* and *people*, *the products/people in the list* could not be found at all on Google Books or in the BYU-BNC (and COCA has only one occurrence with *people*), whereas *the products/people on the list* is common; with nouns that denote linguistic labels (e.g. *the items/names in the list*), however, both *in* and *on* are common. This

suggests that *list* does have a collective facet when it can be associated with *in* (it denotes a set of linguistic labels), whereas in a phrase such as *a list of products*, *list* itself is not collective – like *questionnaire* or *book*, it is a container noun within the organised plurality construction.

What this subsection shows, more generally, is how close containers and collective wholes may be. This will be seen further in § 3.5: it explains why so many container nouns may be used in the organised plurality construction.

3.4.1.2 *Nouns that denote networks*

The words considered here are *network*, *web*, *lattice* and *latticework*. The last three are clearly not collective: the collective interpretation of *a web of companies* (Arigne 2011: 88), for instance, is again obtained at construction level. *Web* on its own denotes a spider's web (which gives rise to metaphorical uses) or a piece of woven fabric; in either case, the filaments are not construed as units. Consequently, *a web is/may be composed of* … (test (a)) may not be completed by *companies*, and *this web* would be an odd anaphoric expression for *a web of companies*.

Network requires further comment: the metaphorical use exists even without an *of*–complement, for the professional world – along with the recent verb *(to) network*. For instance:

(22)   Networking to Find a Job: This is generally a <u>network</u> for the short term. Perhaps you've been recently laid off. Or maybe you just can't stand another day at your current job. Your <u>network</u> should consist of people employed in your industry […].   (2008, Google Books)

In this use, all the defining features established earlier apply: the noun denotes a plurality (of people) obtained by grouping together units and construed as such; tests (a) and (b) are felicitous; this is a part-whole relation, which exists at lexical level. As noted by Arigne (2011: 87), the collective interpretation is made possible by the salience of the nodes (people) over the lines (connections) in the network, which gives them the status of units.

3.4.1.3 *Durations (e.g. 'week')*

Week is not a collective noun. 'A week is composed of days' is fine (test (a)), but ?'a day is (/ may be) part of a week' (test (b)) is rather odd. This is because *week* does not construe the period of time as a grouping of seven units. Rather, as defined by the OED (2018), it is a "unit of time" consisting of seven days. The days are finer-grained ways of splitting time, but not themselves construed as units. *Throughout the week* is evidence of this continuous representation of time, from which a duration is carved out; similarly, *this week* could not be replaced by *these seven days; the *working week* even reduces the length to five days.

For the same reason, *month*, *year*, *century*, *hour*, *minute* and *term* will be excluded. So will *semester*, although its morphology in Latin itself originates in a compound of 'six + months': a semester is as much 'half a year' as 'six months', or even, at university, a period containing a number of weeks of courses and an exam period. Moreover, contemporary English speakers are not necessarily familiar with the Latin origin. *Quarter* (in the sense 'period of three months') is excluded as well, because it explicitly construes the period of time as a fraction (a quarter of a year).

The issue is more complex for *decade*, which is less part of the basic everyday language than *week* or *year*. Its definition may have been learnt specifically at school as 'ten years'; and when processing it in discourse, the hearer sometimes actually needs to count to ten to retrieve the exact period meant (e.g. *the data source for the decade ending 2005*, 2010, Google Books). It is not usually the case with *week*, *month* or *year: in a month's time*, for example, would lead the hearer to select the following month, or if it is a precise duration, select the same date (e.g. the 3rd) in the next month. There would not be any counting of 30 days or so. Another difference is that *decade* comes from a Greek word meaning 'a group of ten', which is potentially collective (historically, *decade* 'period of ten years' is short for *a decade of years*, OED 2018). It will be concluded that *decade* has a collective *facet*, activated only in the rare cases in which speakers have to consider a set of ten years. Elsewhere, what prevails is a unit of time, as for *week*. For instance, in *the decade of the 1890s* (2008, Google Books), or *The seventies were a decade of pause* (2012, Google Books), *period (of ten years)* is a better gloss than *set of ten years*.

3.4.1.4 'Alphabet'

Alphabet shares with the terms of duration above (e.g. *week*) the idea of a predetermined set: it does not take just 26 letters to make a Latin alphabet (26 'l's are not suitable), but one of each – just as the seven days in a week have to be consecutive and therefore different: one Monday, one Tuesday, and so on. But this specificity does not disqualify it: the defining features apply. An alphabet is construed as a set of letters; a letter is part of an alphabet; *a big alphabet* does not entail *big letters*. *Alphabet* will therefore be regarded as a collective noun.

3.4.2 A list of inanimate count collective nouns that may occur without an *of*-complement

Levin (2001: 13) writes that "the scarcity of collectives referring exclusively to inanimates is notable". It is true that the number is low compared with humans (55 against 125 respectively), but still, there are three and a half times more collective nouns for inanimates than for animals (55 against 15). The tentative list obtained is

the following (*set* and *pair* are not given again here, as they are already listed among the terms that are not specific to humans, § 3.2.4.2 above):

– collective-only nouns: *alphabet, archipelago, assortment, bouquet, bunch, bundle, clump, cluster, coffee-set, collection, colonnade, consortium, constellation, dinner-set, fleet, flora, heap, musculature, nosegay, panoply, pile, place setting* ('set of cutlery, crockery, glasses, etc., required to set a place for one person at a table', OED 2018), *posy, repertoire, series, sheaf, stack, trousseau.*
– nouns with a collective sense: *agglomeration, aggregate, altar service, arrangement* (for flowers), *arsenal, batch, battery/batterie* ('apparatus for preparing or serving meals'), *caravan, carillon, chime* ('set of bells in a church tower'), *composition, convoy, corpus, forest, jumble, kit* (as in a *tool kit* or a *soldier's kit*), *lot* (in the very minor sense of 'a set'), *navy* (sense 'fleet'), *network, paradigm, plurality* (linguistic sense), *range, repertory, pharmacop(o)eia, wardrobe, wood.*
– nouns with a collective facet: *decade, list.*

3.4.3 A comparison between inanimate and animate count collective nouns

Now that a list of inanimate count collective nouns that may occur without *of*-complements has been established (at least tentatively), the second question raised at the beginning of § 3.4 may be addressed: do all count collective nouns share any further characteristics than the three defining features? It was found that humans and animals shared the following:

– hybrid agreement; this, however, is known to be impossible for inanimates.
– a gloss in *members* for the units: *member*, unfortunately, is not adequate for inanimates.
– a bounded whole at lexical level, with resulting non-additivity (though with varying degrees of permeability): inanimates, too, share this property. This is due to the /count/ feature, which construes the collective whole as a bounded whole.

The study now turns to nouns that may only occur as N1s in binominal NPs. They have been studied partially for French, but a closer look at English shows a more complex variety of cases. The leading question is whether any of these N1 are collective at all.

3.5   The boundaries of collective nouns among N1s in binominal NPs

Binominal NPs with a *det + N1 + of + N2-s* pattern may involve a number of semantic relationships, such as the following:

– with deverbal N1s, the *of*-PP typically indicates the semantic subject or object: *a meeting of delegates* (delegates meet), *the destruction of whole cities* (someone destroys whole cities);
– the construction may have a partitive meaning: N2-s denotes a set from which a portion, a subset, is extracted: *a bunch of these flowers*;
– conversely, N1 may indicate that units denoted by N2-s are brought together: *a group of bystanders*, *a sea of faces*, *this chain of islands*, *a handful of students*.

This last case is the one that is relevant for the present study – the other types may be regarded as homonymous constructions. N1 may have various semantic origins:

1. a collective noun, used literally in the construction, with an optional *of*-complement (*a group of bystanders*, *the herd of elephants*);
2. a collective noun, used metaphorically (*a sea of faces*);
3. a noun which does not denote pluralities of units outside the construction (*a chain of islands*);
4. a noun with an inherent quantitative value (*a handful of students*, *a number of people*).

The question to be answered here is whether any of the nouns in cases 2 to 4 are collective. As was seen in the introduction to this chapter, this is a matter of debate today. To Benninger (2001), none of them are; they are "quantificational substantives" (*substantifs quantificateurs*), because they have no conceptual autonomy (the *of*-PP is compulsory – or rather, is typically compulsory), and instead, take on a quantificational value. In case 2, the nouns are no longer collective nouns, but "quantificational substantives with a collective value" (Benninger 2001: 31). Case 3 nouns are "occasionally quantificational substantives" (*SOQ,* "substantifs occasionnellement quantificateurs"), and case 4 nouns are "essentially quantificational substantives" ("SEQ, substantifs essentiellement quantificateurs"). Lammert (2010: 280, 314) and Lammert and Lecolle (2014), on the other hand, consider that in metaphorical uses, the collective nouns are "used as quantificational substantives" (because they become part of a complex determiner that quantifies over N2-s), although they still convey part of their collective meaning. But some metaphorical uses retain N1 as main noun, so that Lammert (2010: 312) calls for further research. Conversely, Biber et al. (1999: 248) include metaphorical uses among collective nouns for English. As for Arigne (2011), she regards nouns such as *line*,

maze, *choice*, *number* and *totality* as collective, because they denote collections of units in the construction; it may be inferred that she would regard the nouns in category 3, and at least some of category 4, as collective.

These divergences, I argue, are largely due to the fact that existing studies do not make a distinction between word and construction level. This iscrucial, as evidenced by a constructionist approach; I use Langacker's Cognitive Grammar framework. As I proposed earlier (3.3.1.2 above), like any construction, the *Det + N1 + of + N2-s* construction itself organises semantic roles, at construction level: any N1 will take an 'organising principle' value, while any N2-s will specify the nature of the units. In addition, when combining an N1 and an N2-s, a "correspondence principle" applies (Langacker 2008: 183): some semes get disactivated, to allow for compatibility between the two nouns. For example, in *a swarm of panicked men* (Biber et al. 1999), the /insect/ seme in *swarm* gets disactivated. In that sense, meaning is dynamic. The semantic status of the noun ('collective noun', 'quantificational noun'), I argue, can only be understood if these interactions between N1, N2-s and construction-level organisation are distinguished from the semantic contribution *of N1* at word level.

Before this can be examined further, a word must be said about the name chosen for the construction here: although it was introduced earlier in the volume as the "organised plurality construction" (3.3.1.2), in part of the literature, these binominal NPs are known as "pseudo-partitives". It must be explained why "organised plurality construction" has been preferred here.

3.5.1   From 'pseudo-partitives' to the 'organised plurality construction'

The term "pseudo-partitive", introduced by Selkirk (1977) in research on partitives, seeks to capture the difference between binominal NPs such as the following:

(23) a. partitives: *a number of these objections*, *3 litres of that milk*, *a group of us* (note: partitive constructions do not have to be binominal: *some of the boys*, *one of us*)
      b. pseudo-partitives: *a number of objections*, *3 litres of milk*, *a group of students*

The two constructions look very similar at first sight. They both show *of* and a plural or a non-count N2 (though a singular count N2 is possible as well for partitives: *the arm of the chair*). They typically involve the same N1s: it is typically possible to 'transform' a partitive construction into a pseudo-partitive just by removing the definite determiner. And Koptjevskaja-Tamm (2001) suggests that cross-linguistically, pseudo-partitive constructions often derive from partitives, through grammaticalisation.

Yet their aims are very different – for other types of differences, which are not relevant for the present study, see for instance Fernández Pena (2018: 145ff). Partitives (23a) are used to extract a part or subset of a definite set (hence definite NPs after *of*, a constraint which Jackendoff 1977: 113 names the "partitive constraint"). With pseudo-partitives, on the other hand (23b), the construction denotes an amount or quantity of some indefinite substance (Koptjevskaja-Tamm 2001). The complement of *of* therefore has to be indefinite, more specifically a bare noun – in other words, either a plural (N-s) or a non-count noun (*milk*).[14] The N1 may have various semantic contributions, among which form (*a pile of bricks*), container (*a pail of apples*), conventionalised measure (*a litre of milk*) or collection (*a group of students*) (see Arigne 2011 for other types of semantics and examples).

Among the possible N1s of pseudo-partitives, those that denote containers have received a great deal of attention, because they allow for two different readings of the construction:

(24) Possible readings of *two glasses of water* (e.g. Champollion 2017: 47):
  a. individuating reading (also called 'counting reading' by Rothstein 2011: 4): two actual glasses, containing water.
  b. measure reading: a quantity of water equivalent to twice that contained in a glass; there does not have to be actual glasses in the situation.

Further tests can establish which reading is activated in context (Rothstein 2011: 22–23). A measure reading will have *much*, as opposed to *many* in the individuating reading (*I haven't read much of the 20 boxes of books* vs. *I haven't read many of the 20 boxes of books*); and only the individuating reading licenses reciprocals (*20 boxes of books were piled on top of each other* has to mean that the boxes themselves were in a pile). By contrast, N1s that denote measures, as in *20 kilos of books*, only license measure readings: *I haven't read much (*many) of the 20 kilos of books* / **The 20 kilos of books are standing next to each other in a row* (Rothstein 2011: 23.).

The contrast between the individuating and the measure readings is important for linguistic theory because it raises the issue of syntactic structure: the semantic head is no longer the N1, but rather the N2. From this, various models have been proposed, and no consensus has been reached yet. A review would go too far beyond the scope of the present volume, as syntactic structure does not have a direct bearing on the classification of nouns. The two main directions are *det + N1 + of* as a complex quantifier with N2 as the syntactic head, or an N1 that retains syntactic head status, but becomes "number transparent" (Huddleston & Pullum 2002;

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14. *Det N1 of [det +count singular N2]* corresponds to a very different construction: the qualifying binominal construction (sometimes known simply as the "binominal construction"). One example is *this fool of a cat*, which can be rephrased as 'this cat *is* a fool'.

Pullum 2015 – see § 3.3.2.2 above). The present study follows the number transparency analysis.

Collective N1s are rarely mentioned, yet they are a complex case. Champollion (2017: 48) notes that in literal uses, they may only have an individuating reading: *a committee of women* has to denote an actual committee, whose members are women. Yet even in literal uses, adding *whole* gives a stronger quantificational value (closer to a measure reading): *a whole committee of women* implies *not just a few women*, rather than *not part of a committee of women* (Lammert 2010: 184). Secondly, there are no detailed study of metaphorical uses to date (to my knowledge at least); in particular, it remains to be understood why the *of*-PP typically becomes compulsory when a collective noun is used metaphorically. Thirdly, some of these nouns lead to constructions that clearly have a quantificational value, such as *a lot of students* or *a bunch of hooligans* (Huddleston & Pullum 2002: 503); but trying to establish a boundary between "collective nouns" (e.g. *committee*) and "quantificational nouns" (e.g. *number*) is awkward, due to a grey area. Huddeston and Pullum (2002: 503) propose two criteria: quantificational nouns show obligatory number transparency (*a number of spots *is …*) and an obligatory *of*-PP (which includes cases of ellipsis such as *a number_ are …*, for which the complement has to be retrievable anaphorically from the context), whereas these are optional with collective nouns. But while on this basis, *lot* or *number* are clearly not collective, *bunch* in *a bunch of hooligans* proves more problematic: although it "simply provides a quantification", singular agreement would sound "unacceptably pedantic" to "many speakers, especially of BrE" only (Huddeston & Pullum 2002: 503). Similarly, Huddleston and Pullum (2002: 503) regard *group, herd* or *flock* as difficult cases. Further investigations are therefore needed here.

This is where the "organised plurality construction" comes in. In order to carry out these further investigations, it is claimed, the binominal construction should not be examined in relation to partitives, or even worse, viewed as some form of imperfect by-product of partitives – "pseudo-partitive" is contrasted with "the true partitive" in Beckwith (2007: 42), or with "proper partitives" in Rutkowski (2007: 337). The "partitive" angle, it is argued, leaves no room for the initial stage of the construction, which is the literal use of a noun that is a clear syntactic and semantic head, with an optional *of*-PP (e.g. *a committee of experts*, *a forest of oak trees*). In addition, the partitive angle cannot explain why a binominal with a metaphorical N1 (e.g. *a forest of masts*) may trigger singular agreement in the verb (no number transparency), although it conveys some form of quantification. Instead, considering the construction as an autonomous one (the "organised plurality construction") enables us to capture the gradient of seme disactivation in the various uses of the construction, and to establish clearly when a noun ceases to be collective.

The organised plurality construction is identified here as *Det + N1 + of + N2-s*, because the focus of the volume is on pluralities of units. *N2-s*, however, should be taken to include non-count nouns that denote pluralities of units (e.g. *furniture*). Further research will be needed in the future to see whether the construction also holds for other non-count N2-s, and/or for wholes that are not pluralities; if this turned out to be the case, "organised *plurality*" might not be the best term, or this might be just one possible realisation of a broader construction. Similarly, in this case, the construction would be more aptly identified as *Det + N1 + of + bare N2* (i.e. N2-s or non-count noun). Such an extension, however, cannot be taken for granted: thorough research beyond pluralities of units, and more generally beyond pluralities, is needed first. Meanwhile, the working label "organised plurality construction" will have to do.

The starting point to determine whether collective nouns lose their collective status in the construction, or whether otherwise non-collective nouns may become collective, will be the nouns uncontroversially labelled "collective" (case 1 above): collective N1s used literally, with an optional *of*-complement (§ 3.5.2). The study will then use this description to consider extended uses (metaphors and idioms), as quantification gets more and more foregrounded. It will argue that collective status is not lost with metaphor (3.5.3). The determining criterion is whether the /group/ seme gets disactivated or not. Disactivation of the /group/ seme is very restricted, as it involves reanalysis of part of the construction as a quantificational idiom; § 3.5.4 identifies the two ways in which this may happen. This better understanding of the relationship between lexical and constructional levels will then enable us to reject collective status for all the other nouns (cases 3 and 4): I argue that the /plurality/ feature is obtained at construction, not word, level (§ 3.5.5).

3.5.2   Meaning relations when N1 is uncontroversially collective

All studies agree that in phrases such as *a committee of experts*, N1 is a collective noun, followed by an optional *of*-complement. A characteristic of all collective nouns, even the most underdetermined ones (e.g. *group*), is that they impose some form of restriction on the nature of the units that form the collective whole. For most, the restriction is not to a single type, which is why they easily license an *of*-complement that specifies the nature of the units (e.g. *a committee of experts; a committee of four senators, four nobles, three bishops and six burgomasters*, Google Books). Others, though, impose a unique type of units in a literal reading. In that case, basic complementation with the unit noun is impossible (e.g. *a choir of singers), especially, as shown by Lecolle (1998: 59) for French, if there is a morphological link between the two nouns (e.g. *a bourgeoisie of bourgeois). An *of*-complement

denoting the units is licensed only if it brings some additional specification (Lecolle 1998: 60), such as *a choir of young singers* or *a bourgeoisie of intellectuals*.

Correspondingly, the additional information in an *of*-PP may be of three kinds:

– qualitative information through a noun (and possibly modifiers), as in *a committee of experts*, or even *a crowd of people*: in *a huge crowd of people was following him* (2012, Google Books), *people* may be understood as 'just people', as opposed to *a crowd of onlookers*, *reporters*, *tourists* or other.
– qualitative information through modifiers, such as *young* in *a choir of young singers*. The N2 acts as support for the adjective, but does not convey new information, as singers are by definition the component units of a choir.
– quantitative information through a numeral (again, the noun, if there is one, just acts as grammatical support): *a crowd of ten thousand*, *an army of over one hundred thousand men*, *a navy of 110,000 men*, *a peerage of at most sixty* (Google Books). For a minority of nouns, including *army*, *police* and *peerage*, quantity was found to be the only possible information in the *of*–complement.

In these literal uses, the core semes of N1 and N2-s are fully compatible: *crowd*, for instance, implies /human/, as do *people*, *tourists* and so on. Consequently, at construction level, no semantic adjustment is required in the correspondence process when establishing reference. Linguistically, the *of*-PP is dispensable, especially in anaphoric expressions (*a crowd of tourists … the crowd …*), and the collective whole may have non-additive properties (in the example above, *a huge crowd of people* does not entail *huge people*).

3.5.3   Extension 1: Collective nouns in metaphorical uses are still collective

As noted by Benninger (2001), when a collective noun is used metaphorically (e.g. *a shoal of visitors*, *a forest of hands*), it usually loses its capacity to occur without an *of*-complement. This holds not only in the antecedent phrase, because the unusual nature of the units needs to be specified, but also, very often, in the anaphor: in the examples given here, anaphoric *this shoal* or *the forest* would be impossible, even though the nature of the units is well established by the antecedent NP. I argue that this constraint is the result of the interaction between N1 and N2-s at construction level; the noun itself remains collective.

Let's take the example of *a shoal of visitors*. At construction level, the correspondence process between N1 and N2 in the antecedent NP requires disactivation of one core seme: /composed of fish/, which is no longer relevant, as *visitors* contributes a /human/ feature. It is the association with *of N2-s* that allows for disactivation of a core seme, because it is the NP as a whole that builds reference.

Conversely, when a noun is used on its own, there is no possibility of NP-internal correspondence; it therefore has to have its core semes activated. That is why in the anaphor, *the shoal* would be impossible. Such differences are common also for other constructions. For instance, the [Adj+N] construction gives the adjective a target for relative interpretation, so that *a good boss* means 'good for a boss', 'good as bosses go' (in other words, 'fair'), whereas outside an NP (*the boss is good*), *good* can only have an absolute interpretation: 'high quality', probably suggesting 'efficient, clever for the job' rather than 'fair'.

Despite the disactivation of an incompatible seme, the collective interpretation remains. The *shoal of visitors* 'is' not a shoal, but it still 'looks/behaves' like a shoal: the visitors probably stand quite close to one another, move together, form a longwise shape (Lammert 2010: 295 reaches similar conclusions for French). The NP could be rephrased as *a shoal-like group of visitors*. Similarly, *a forest of hands* disactivates /composed of trees/, but the hands are still viewed as standing vertically, rather close to one another. When the collective noun has a weaker semantic contribution, such as *bunch* or *batch* (*a bunch of hooligans*, *a batch of students*), the same applies. For *batch*, it is as if the students were all coming out of the same metaphorical 'oven' – they all arrive at once, in the sense that they are all going to be first-year students, for example. As for *bunch* (e.g. *a bunch of hooligans*), if the sole /inanimate/ seme is disactivated, one gets the image of a cluster of people that does not look very neat, with the people standing closely together. If the /in the same location/ seme is further disactivated, the result is a metaphorical bunch, as in *a bunch of people think I'm the reason you resigned* (2011, Google Books). The people in question form a bunch by accumulation (there is X, there is also Y, as well as Z, etc., so X+Y+Z+ … are like a bunch).

Still, even there, despite a strong quantificational value at construction level, the N1 remains collective: its /group/ seme is not lost. Firstly, there is still the idea of one group, and information about the organisation of the units within the collective whole is still active – a *bunch* of people is not like a *batch*, a *bundle* or a *collection* of people. Secondly, and more crucially, in generic contexts, the NP is incompatible with a predicate that ascribes a highly individual property (age or size) to the units: **a bunch of people are older than they look*. This test, it is claimed, is the one that differentiates collective and non-collective status, because licensing such predicates in generic contexts implies that the /group/ seme is disactivated. In that case, at word level, the noun does not contribute a collective value. Very few nouns reach this stage, which involves reanalysis of the construction. This is what the next subsection examines.

3.5.4 Extension 2: Loss of collective status in rare cases of reanalysis of the construction

Reanalysis of the construction may take two different forms: semantic or syntactic reanalysis (Gardelle 2019). Compatibility with a predicate of age or size for the units in a generic context shows semantic reanalysis. It is found for instance in the following: *a lot of people / lots of people*[15] */ hordes of people / bunches of people are older than they look*. As the /group/ seme is disactivated, the plural (*lots*, *hordes*, *bunches*) does not mean /several groups/ (compare: *tribes/*squads/*groups of people are older than they look, for a generic predication about people). *Bunches*, *hordes* and possibly *lot(s)*, still contribute a minor part of their meaning, including part of the metaphor of the bunch or lot. ?*Bunches of gems*, for instance, would be odd because gems are not normally thrown into bunches, but stored carefully; and any plurality of units may form a 'lot', at least through accumulation. But bleaching at idiom level makes *bunches of* and *a lot of / lots of* non-compositional idioms, in which the N1 no longer has a collective contribution (the /group/ seme is disactivated). The idiom is no longer an illustration of the organised plurality construction, but a quantificational idiom.

As for syntactic reanalysis, it may be illustrated by *couple of*, in phrases such as *these [couple of] emails / these next [couple of] games*, or *a [couple of] more steps* (the COCA has 199 occurrences of *a couple of more*, search 2019). The former *[N+of]* is reanalysed as a plural complex modifier, with the same grammar as pre-nominal *few*. This reanalysed quantifier use of *couple of* has been shortened to *couple* by some speakers, which is syntactically logical as the preposition is pointless: *he rattled off a [couple] sentences*, *these [couple] goals* (rare), *a [couple] more cop cars* (*a couple more* now seems to be more common than *a couple of more*, with 881 occurrences in the COCA, search 2019). The 'eye dialect' form *coupla* (e.g. *a coupla beers*) may be viewed as a similar attempt to get rid of the preposition. In all these cases of reanalysis, *couple* is no longer a noun, so no longer a collective noun; like *few*, *couple (of)* is a quantifying modifier. *Couple* has not entirely lost its meaning: there is still the notion of association of two elements of the same sort – but it may be extended to 'two or so', at least to some speakers, so that *this couple sentences* may refer to three sentences. Another example of similar syntactic reanalysis is *these batch of photos*.[16]

In conclusion on collective nouns, what matters to establish the boundary of the class is not the salience of quantification at construction level, or a compulsory

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15. Nowadays, the collective sense of *lot* hardly seems available in *Det + lot + of + N2-s*, except in rare uses for humans (e.g. *damn this lot of insufferable bores / the American people, who are a busy lot of folk*, Google Books) (Gardelle 2019).

16. Syntactic reanalysis also affects *kind of* among kind-referring nouns: *these kind of ideas*.

of-PP, or even number transparency. These are necessary, but not sufficient conditions. For instance, in *a forest of spears were aimed at the Orcs* (2011, Google Books), the spears considered together are said to resemble a forest. Rather, what matters is whether the /group/ seme is disactivated. This occurs only when the construction gets reanalysed. The resulting idiom no longer instantiates the organised plurality construction. It is a quantificational idiom.

3.5.5   Application to N1s that are not of collective origin: Rejection of collective status

A similar shift, from a core contribution retained in the organised plurality construction, to (rare) reanalysis of part of the construction as a quantificational idiom, applies to N1s that are not originally collective. The only difference is that at word level, their core semantic contribution is not /group/, but /container/, /weight/, and so on. As a consequence, none of these nouns are collective – the conclusion is the same as for binominals that denote animals, such as *a busyness of ferrets* (see § 3.3.1.2 above).

   Let's first consider concrete nouns that do not have a /plurality/ feature outside the construction (case 3 above), such as *chain* or *sea*. When used for pluralities of entities, these nouns are necessarily in metaphorical use. This requires adjustment (the links in the chain are not physically interconnected; the faces have spaces between them, so that they do not form a truly continuous surface); still, the pluralities are viewed as 'looking like' a chain, or a sea. *Chain*, or *sea*, does not have a /group/ feature in its lexical matter – no one who was asked what *chain* means would give 'group', or 'set,' as a possibility. The noun receives the role of organising principle, as well as the notion that the whole is composed of units, from the construction; at word level, it only contributes its concrete, non-collective meaning. As with *bunch* for collective nouns, a few of these nouns license abstract interpretations through accumulation (*a heap of ideas*), but there is still the notion of an organised plurality (with a heap-like shape) and component units (ideas), so that a generic statement of age or size is impossible: **a heap of ideas are older than they seem*. At this stage, therefore, the N1s are non-collective nouns (they are nouns that denote containers, or concrete objects, and so on) in the organised plurality construction. For a few of them, the construction may also undergo reanalysis, which produces quantificational idioms. No instances of syntactic reanalysis were found, but semantic reanalysis is at work, for example, in *heaps of ideas: heaps of ideas are older than they seem* is felicitous, and *heaps* does not trigger the image of several heaps – note that the French equivalent, *tas*, works like English *lot*: reanalysis takes place both in the plural (*des tas de*) and in the singular (*un tas de*). Other examples are *bags* and *loads of N2-s*.

As regards abstract nouns that do not have a /plurality/ feature outside the construction, such as *variety* or *diversity*, the only difference is that they do not have metaphorical uses. Some of them seem to license reanalysis: *a variety of people are older than they look* does not seem impossible, in which case *a variety of* is a quantificational idiom (semantic reanalysis); while a few occurrences of syntactic reanalysis (e.g. *these variety of schemes*, *these diversity of objects*) were found on Google Books (search 2019) – is this a recent use, or just occasional idiolect? Further research is needed here.

Where number or quantity is part of the semantics of the noun, quantity is obviously always salient. But the construction still shows a similar dividing line. *A profusion of flowers are scattered on the floor*, for instance, still conveys the quality /profuse/ despite number transparency, and does not license a generic statement of age (*a profusion of flowers are quite new). Neither does *a ton of ideas*: although *ton* is hyperbolic, rather than meaning '1,000kg', it will be concluded that when *ton* is in the singular, the construction is still analytical (and so, still the organised plurality construction). It denotes a plurality with a metaphorical weight, composed of units that are ideas. Conversely, *tons of ideas* or *a number of ideas* illustrate semantic reanalysis. For *number*, reanalysis goes along with a shift in meaning, from a given number (*the number of unemployed* corresponds to a specific figure) to the idea of an indefinite quantity. As for syntactic reanalysis, it was found with *number* (e.g. *these number of years*) and *handful* (*these number of men*, *those handful of families*).[17]

Further research is now needed, which would go beyond our purposes as it has no bearing on the boundaries of the class of collective nouns. In particular, most examples taken for the study involve an indefinite article; but Keizer (2007: 112) and Gardelle (2019) suggest that using definite determiners might have effects on interpretation. It also remains to be understood why only some nouns license a shift to N2-s as the semantic head (number transparency), and whether frequency of number transparency (see Fernández Pena 2018 for a corpus-based analysis of number agreement), as well as reanalysis of part of the construction as a quantificational idiom, could be semantically motivated. Another area of interest is the relationship between N-s (the noun with a morphological plural marker) and the

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17. A word must be said about *myriad*. It can follow the grammar of numeral *hundred* and *thousand*, being itself a borrowing (possibly through Latin) from a Greek numeral meaning 'ten thousand': *a myriad things / myriads of reasons*. But it can also have nominal status in the singular: *a myriad of things*. Still, even there, it is not collective (*a myriad is composed of [units], even *a myriad of reasons is composed of reasons), but denotes quantity. In that respect, it is comparable to *profusion* or *multitude*. It is a non-collective noun used as N1 in the organised plurality construction.

singular form. While the morphological plural is traditionally analysed as an addition in discourse, the cases of semantic reanalysis above show that plurals have potential evolutions that singulars, except for *lot*, do not have (*bunches of*, *heaps of*, etc.). It may well be, then, that plural *bunches* (or *heaps*, etc.) have their own categorisation in language, and perhaps not just in these idioms. This idea was suggested by Langacker (2008: 346, see § 4.1.6), and further evidence is provided later on in the volume, with the hypothesis that *furniture* nouns are hyperonyms of plural classes (Chapter 5).

3.6 Conclusion

Although count collective nouns as a whole (beyond those that license hybrid agreement) are not the focus of studies of English, the present chapter hopes to have shown that they deserve a full study.

About hybrid agreement, the study has concluded forcefully that it could not be regarded as a defining feature of the class of collective nouns; rather, it is an addition to the system, as an effect of the Animacy Hierarchy. As importantly, hybrid agreement was shown not to guarantee that the head noun in the subject NP is collective: a major theoretical difference was made between lexical-level collectiveness and discourse-level collective reference. The two do not necessarily overlap. A major distinction was drawn between different ways of denoting pluralities of units using count nouns:

– collective nouns, which include collective-only nouns, but also nouns with a collective sense, and nouns with a collective facet at lexical level;
– NPs with collective reference as a result of contextual metonymy: their head is not a collective noun, so that the same NP might have non-collective reference in another context. Examples of such NPs are *British Rail* or *the dairy industry*. The list of potential head nouns is endless.
– a highly productive binomial construction, especially for animals and inanimates, termed the "organised plurality construction" (*Det + N1 + of + N2-s*), which relates to what some other frameworks term "pseudo-partitives". A major conclusion is that the 'plurality of units' meaning is projected by the construction itself, and so, obtained at construction level; it ought to be distinguished from the contribution of the N1 at lexical level. Any noun that is not collective outside the construction won't be collective there either. Consequently, most of the so-called 'collective nouns' that make whole books for the general public, such as *busyness* in *a busyness of ferrets*, are not actually collective. What these books list are pluralities of units; the NPs are intended by those who coined

them as 'collective NPs', because tests (a) and (b) are intended to be felicitous at NP level whatever the context of use (*a superfluity of nuns is composed of nuns / nuns may be part of a superfluity of nuns; a busyness of ferrets is composed of ferrets / ferrets may be part of a busyness of ferrets*), but the glosses sound odd when the phrase is not actually used in language. This, it is suggested, is due to the fact that coinages exploit the organised plurality construction, which does not yield just collective NPs (e.g. **a profusion of flowers is composed of flowers*). Hence the broad label "organised plurality construction", rather than "collective construction".

For each category of the Animacy Hierarchy, a tentative list of count collective nouns was proposed. This typology shows that count collective nouns are much more common for humans than for inanimates, and that animals rank last. The nouns, 197 in all (194 mentioned so far, + 3 more complex ones for humans in § 5.4.3.2), stand as follows:

–   humans: 125 nouns, that is, 64% (48 collective-only nouns, against 77 with only a collective sense, that is, nearly twice as many);
–   animals: 15 nouns (8%; mainly collective-only nouns, 10, against 5 with a collective sense);
–   inanimates: 57 nouns (28%, equally distributed among collective-only nouns, 28, and nouns with a collective sense, 27, + 2 with a collective facet).

In the course of the study, close relatives of the *collective whole:unit* relation were also made out, especially the *taxon:exemplar* relation, exemplified by *race*, *breed* or *species*. The possible shift from taxon to collective whole was also brought to light, with corresponding differences in grammatical properties (e.g. N2 vs. N2-s in the *of*-PP). For inanimates, a number of nouns were shown to be very close to collective nouns (e.g. *database*), because inanimates are perhaps more apt to be regarded as componentially complex. Strong arguments were given to determine whether they should be included or not, which also revealed a few borderline cases and contextual options for construal.

This brings us to the definition of count collective nouns (a short-cut for "collective nouns used with a /count/ feature"). The three defining features established at the beginning of the volume were found to be fully relevant:

–   a *plurality* of *units* construed as the result of a *grouping operation*. For count nouns, tests (a) and (b) therefore apply (*An X is /can be composed of units Y; A unit Y can be part of an X*).
–   a part/whole relation
–   such a construal at lexical level

In addition, because all count nouns denote bounded wholes, the collective wholes exhibit non-additive properties (though with varying degrees of permeability). As this property is a direct consequence of the /count/ feature, it should not be automatically retained as a defining feature; this will have to be refined in the next chapters. Similarly, for the study of non-count nouns, tests (a) and (b) will not be retained, as they can only apply to count nouns ('an X').

What must be seen now is whether the class of collective nouns should be extended to some non-count nouns – singular-only (e.g. *furniture*) or plural-only (e.g. *belongings*) nouns. In order to do this, count collective nouns must first be compared with a way of denoting pluralities of units that is clearly not collective: NPs that get their /plurality/ feature at discourse level (e.g. *cats*). In this way, it will be possible to see in more detail what a collective status at lexical level entails in terms of construal for the plurality of units. This is all the more important since, as noted in Chapter 1, a number of studies in philosophy or formal semantics describe the meaning of NPs in the plural as "*collections* as one", after Russell (Moltmann 2016: 93).

A comparison between NPs headed by count collective nouns and NPs whose /plurality/ feature is acquired in discourse

A count collective noun is collective at lexical level, that is, has a /plurality/ feature at lexical level. When used in discourse, the NP that it heads also carries a /plurality/ feature as a result. Conversely, most NPs that denote pluralities of entities only acquire their /plurality/ feature at discourse level: the head noun does not carry /plurality/ at lexical level (e.g. *two jurors; John and Mary*). The aim of this chapter is to understand to what extent a discourse-acquired /plurality/ feature construes the plurality of entities differently from a lexical-level /plurality/ feature. There are four ways in which /plurality/ may be acquired at discourse-level; the chapter examines them in turn.

The first one is the morphosyntactic plural carried by count nouns in the plural (e.g. *jurors*). The comparison is all the more important since, as mentioned at the end of Chapter 3, the singularist approach in philosophy and formal semantics, after Russell, describes the denotation of such NPs as "a collection as one" (e.g. Moltmann 2016: 93). Moreover, Langacker (2008: 130, 131, 146) proposes to consider the morphological plural not just as a syntactic addition, but as a lexical component: *jurors*, to him, names a different class from *juror*. Another major point of interest about the morphological plural is that some nouns license an optional zero-morpheme, called "collectivizing" by Allan (1976, 1986: 132), in alternation with the *-s*; as in *three elephant_*. What is the exact relationship between this "collectivizing" operation and collective nouns? Furthermore, some collective nouns license uninflected plural uses to name the members; *three crew*, for instance, is coreferential with *three members of crew*. Are these nouns still collective? Why this shift, and again, why no *-s* morpheme?

The study then goes on to examine the other three ways of denoting a plurality of units through discourse-acquired features (§ 4.2). One is so-called substantivised adjectives (e.g. *the rich*): do they head collective NPs? Another is conjoined (that is, coordinated) NPs, such as *the cows and the horses*. Studies in philosophy and formal semantics disagree as to whether a conjoined NP denotes a single set (a set of

sets) or a union; here again, the link to collective wholes must be specified. The last way of giving an NP a /plurality/ feature is a quantifying determiner such as *every* or *each*; what does the singular in the noun convey in terms of construal, again in comparison with the other means of denoting 'more than one unit'?

4.1   NPs headed by a count noun in the plural

4.1.1   The morphosyntactic plural: Discourse feature or component of lexical matter?

Morphosyntactic number in English is typically regarded as an inflection added in discourse to a lexical base, meaning 'more than one'.[1] As described for instance by Huddleston and Pullum (2002: 340), "[t]he singular is identical with the lexical base and the plural is formed from the base by suffixation or some other morphological process: this is a matter of inflection." In a Minimalist framework, Sportiche, Koopman and Stabler (2014: 201), for instance, identify a Num[ber] head, which is [±count]; if it is [+count], then it can be "either [+plural] or [−plural] (that is, singular)".[2] Number eventually comes to be expressed at the end of the noun (e.g. *balloon-s*) thanks to head movement. In this view, morphosyntactic number stands in contrast with lexical number, which may not be glossed as 'more than one unit' (e.g. *scissors* does not mean 'more than one scissor', or *waters* 'more than one water') (Acquaviva 2008: 12). On this basis, Alexiadou (2011: 37) proposes a "split analysis of plural Number", based on two types of plural: a "so-called grammatical plural", which attaches to a word, and is thus on the Number head, and a "so-called lexical plural", which is involved in the word formation process itself and as such, is on 'n' (it is a categorising head).

Langacker (2008: 346), however, challenges this analysis and proposes to regard the morphosyntactic plural as a component of lexical matter. More specifically, to him, count nouns in the plural (from now on, "N-s", e.g. *pebbles*) should be regarded as heading their own category: "While pluralization does apply to a noun, it also

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1.   As pointed out by Morgan (1984: 235), with quantifiers, the 'more than one' feature might reflect construal rather than the objective number of units. *More than one person has failed this exam* shows singular agreement whereas there are 'more than one' person; *fewer than two people have failed this exam* shows plural agreement for just one individual. One possible explanation is that the cognitive starting point is *one person has failed* (/ *two people have failed*), and that from this core proposition, quantification is then adjusted (*more than* / *fewer*).

2.   If Number (Num) is [−count], then to them, it is [−plural]; this seems to be forgetting plural non-count nouns, such as *belongings*.

derives one – a higher-order noun that specifies a distinct type representing a different category (mass instead of count).” (Langacker 2008: 346). As evidence of this, while a single instance of the category *pebble* is a single stone, a single instance of the category *pebbles* is a “replicate mass”, a plurality of pebbles (Langacker 1991: 78).

Langacker (2008: 130) regards N-s part of the mass[3] noun category: “The mass noun category – in a broad sense of the term – includes both plurals and mass nouns ‘proper’ (such as *gold*).” Indeed, as shown extensively in various frameworks, N-s and mass nouns share a number of properties that count nouns in the singular do not have. To name a few, both N-s and mass nouns denote a reality that is not inherently bounded, when a singular count noun denotes a bounded whole.[4] They both license collective predicates: *the children surrounded the teacher / the water surrounded the castle* (compare: **the child surrounded the puddle*) (Abbott 2010: 163). For Link (1983), both have lattice type structure: with N-s, the parts combine into a sum, and are of the same kind as the sum: as summed up by Abbott (2010: 159), “a sum of pencils consists of pencils.” Similarly for mass nouns, amounts of milk combined together yield another amount of milk. This accounts for well-known cumulative reference properties: *pebbles + pebbles = pebbles*, just like *water + water = water* (whereas *a pebble + a pebble ≠ a pebble*) (Quine 1960: 91; Link 1983: 128). The main difference is that with N-s, but not with prototypical mass nouns (vs. nouns such as *furniture*, see § 5.1.2), divisibility may yield atoms (one pebble). Due to similarities in their construal, N-s and mass nouns license a lot of similar combinations, which singular count nouns may not have:

(1)   Proximity between plural count nouns and mass nouns
                                                        (Radden & Dirven 2007: 65)

	singular count Ns	plural count Ns	mass Ns
i.	*the whole car*	**the whole cars*	**the whole traffic*
	day in, day out	**days in, days out*	**time in, time out*
ii.	**full of car*	*full of cars*	*full of traffic*
	*a shortage of worker	*a shortage of workers*	*a shortage of labour*
	*collect a coin	*collect coins*	*collect money*

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3.   “Mass” is used here to reflect the terminology used by Langacker or the syntactic theories mentioned in this paragraph, especially as Langacker gives a broader sense to ‘mass’ than is usually done. “Non-count” will be preferred elsewhere in the volume.

4.   In Langacker’s (2008: 132) terminology: “In the case of a count noun, [the thing profiled by the noun] is construed as being bounded within the immediate scope in the domain of instantiation. The profile of a mass noun is not construed as being bounded in this fashion.”

One major difference between N-s and mass nouns is that only N-s license numerals.[5] This reflects a difference in construal: "By its very nature, a plural (e.g. *diamonds*) refers to multiple instances of the same type (*diamond*). It thus portrays the mass it designates as consisting of individual 'particles' salient enough to be countable." (Langacker 2008: 130) A mass noun "proper", on the other hand, foregrounds "the perceived continuity of the mass at the expense of constitutive entities" (Langacker 2008: 131).

This view of N-s could be strengthened by Acquaviva's 2016 conclusion that the plural, whether morphosyntactic (count nouns) or lexical (mass nouns), conveys a single core meaning: "plural conceptualizes an entity as consisting of parts" (Acquaviva 2016: 209), "imposes a complex part structure on the noun's denotation" (Acquaviva 2016: 214). Following Borer (2005), he considers that in both types, "it is grammar that constructs and determines the part structure of a noun's reference domain" (Acquaviva 2016: 209), although in the case of lexical plurals, that syntactic component is part of the lexical content of the noun.

Langacker's (1991, 2008) description shows very convincingly that an N-s, such as *chairs*, does not just denote the category *chair* + a reduplication in discourse. Chapter 5 of the present volume will similarly propose that nouns such as *furniture* are "hyperonyms of plural classes"; see also the hypotheses at the end of § 3.5.5. The present volume will not go so far as to make plural classes (e.g. *chairs*) a subclass of mass nouns, however, because they have a [+count] feature – research needs further findings in other areas of language to make further modelling possible. Retained here is the fundamental idea that *chairs* does not just denote a sum (*1 chair + 1 chair + 1 chair [and so on]* – I give "sum" a different sense from Link 1983). *N-s* conveys a construal of its own, which is addressed now in § 4.1.2, with the study of the *-s* morpheme.

4.1.2 Construal of pluralities when the plural morpheme is -s: Distinction between 'collective' and 'cohesive'

The plural morpheme *-s* may be realised as an actual *-s*, or through irregular plurals (e.g. *mice*, or Germanic *-en* as in *children*). Morphologically invariable nouns, such as *sheep*, are considered in 4.1.3 below.

Count nouns in the plural ("N-s") show four major similarities with NPs headed by collective nouns in the singular. First, because a single noun is used, the entities undergo some form of homogenisation: *animals*, for instance, implies

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5. Moreover, singular mass nouns do not license plural quantifiers (*several*, *few*, *many*). For plural mass nouns (lexical plurals), usage varies slightly, especially for low quantities (see Chapter 6).

that differences between birds, dogs, and the like are backgrounded, just as *herd* implies that all the individuals are equally 'members'. Secondly, because reference is to more than one individual, an N-s licenses collective predications or properties: *the jurors met*, *the jurors were unanimous*. Thirdly, as mentioned in § 1.1.3, collective action does not necessarily involve all the members. Typical examples are *The Romans built the aqueduct* (Link 1998: 21), or *We won the Second World War* (from a speaker who might not even have been alive at the time). This shows that an N-s does not just denote a sum of units; it exhibits what Acquaviva (2008: 104) calls "cohesion", that is, "the property of being related together", which accounts for the impression of a "collection as one" noted in philosophy and formal semantics. Finally, N-s may denote a bounded plurality in discourse, when combined with a definite determiner: *these jurors*, *my parents*, *the trees*.

Yet despite cohesion, N-s may not be said to form a collective NP, or a "collection as one". The units retain their individuality: they can be counted (e.g. *two jurors* counts the individual members, whereas *two juries* would count the collective wholes), and can easily be differentiated (e.g. *the jurors have nothing in common*, whereas even with plural override agreement, such strong differentiation is unacceptable: **the jury have nothing in common*). While both NPs headed by count collective nouns and N-s license what Lønning (2011: 995) terms "simple collective properties" (such as *met in secret* or *collided*), most count collective nouns do not license "relational collective properties" (such as *are friends* or *love each other*), that is, properties that establish relations among the units in the plurality. And while "ordinary properties" such as *bought a house* or *lifted five stones* may be predicated either distributively or collectively with N-s, they have to take a collective reading with an NP headed by a collective noun (Lønning 2011: 995). These facts suggest that despite cohesion in the plurality, with N-s the units remain the reference level. This is confirmed by the fact that even with a contextually-bounded plurality, tests (a) and (b) fail: **the jurors are composed of [people]* (the string would call for the parts of a human body), **a juror may be part of (the) jurors*.[6] Or as pointed out by Schwarzschild (1996: 178) or Acquaviva (2008: 104), **my parents have two members* is impossible; so are non-additive properties of size, shape or *gestalt*, or spatial and temporal extensions. For instance, *the pearls are long* may not describe the form of the set of pearls (Moltmann 1997: 116); Acquaviva (2008: 104) similarly gives the

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6. Some N-s license *consist of [members]* if they are high up the superordinate level or in highly generic statements; but this reflects *class*, not meronymy (group). For instance: (1946, Google Books) *Property-carrying vehicles consist of trucks, trailers, and tractor-semitrailer combinations.* / (2012, Google Books) *Klein found that between 16,000 and 12,000 bc the animals consisted overwhelmingly of grazing species such as wildebeest, hartebeest, springbok, giant buffalo and quagga.*

example of *the heirs shrank in size*, which may not mean that the set of heirs lost members. These tests lead us to conclude that discourse-acquired bounding differs from bounding at lexical level in terms of construal – which will be a crucial idea for the next chapters.

From this, I propose to consider that an N-s denotes a mere "grouping" of fully differentiable entities (in French, *regroupement*, Gardelle 2018b): several entities are considered together, which creates cohesion effects at NP level. With these groupings, the units are regarded as having the same nature (given by the noun), but they are still fully accessible within the plurality. In other words, there is not a double layer of construal, even when the plurality is bounded in context. This mode of construal is in keeping with the linguistic form: *N-s* is formed from a unit noun, which gives the nature of each unit, to which a /plurality/ feature is then added; whereas with a count collective noun, the /plurality/ feature is not added to a base, and the noun does not name the members, but a different reality (e.g. an inanimate entity called a *jury*, not the individual members).

4.1.3   Construal of pluralities with the zero plural morpheme: A form of collectivisation?

The nouns considered now are those count nouns whose plural form is, or may be, identical to their singular and more generally to their morphological base (lemma); they are alternatively termed "uninflected plurals" (e.g. Wickens 1992) or "base plurals" (Huddleston & Pullum 2002). Examples are *sheep* or *aspirin* (as in *two aspirin*).

4.1.3.1   *ø as a morpheme:* (These) elephant, aspirin, (ten) crew *and others*
While English grammars typically regard the zero plural morpheme (henceforth *ø*) as a mere variant of the *-s*, just like irregular plurals (e.g. *children*, *mice*), Hirtle (1982, 2009), followed by Wickens (1992), shows very convincingly that it is a different morpheme, with its own semantic contribution. In other words, in English, "the zero and the *s-* endings express different parts" of the number system (Wickens 1992: 12). The *ø* morpheme may be compulsory (e.g. *sheep*), a common alternative to *-s* (e.g. *elk*), or an alternative that is chiefly restricted to contexts of hunting, shooting and conservation (e.g. *elephant*, Huddleston & Pullum 2002: 1588, see also Allan 1976: 103). Whichever the case, Hirtle (1982: 62) finds the same core value: "plurality is viewed against a backdrop of unity, many in the prospective view of one, discontinuity in terms of continuity". *ø* "results in a set of individuals inhering in a whole or continuate", where *-s* "defines a set obtained by extrapolation beyond a unit view" (Hirtle 2009: 99). The nouns may denote pluralities of humans, animals, or inanimates; here is an overview to illustrate Hirtle's point.

For humans, the ø morpheme is found with *people* (which shows less individuation than *persons*) or *offspring*, and optionally with the names of tribal and ethnic groups, as in *two thousand Eskimo* (Hirtle 2009: 98), *Apache*, *Hopi*, *Inuit*, etc. (Huddleston & Pullum 2002: 1589). To Hirtle (2009: 98), the ø morpheme reflects a construal of the referents as "constituting the ethno-linguistic group"; this explains why it is not licensed, for instance, for *Canadians* (*these Canadian_): "the fact of being Canadian does not define one's ethnicity as inherent in one's makeup". It is an "accidental characteristic". This difference also explains why the ø morpheme is found mostly in scientific and specialised writing (Hirtle 2009: 98), and why Huddleston and Pullum (2002: 1588) note that count usages of *Chinese* (e.g. *two Chinese*) are now felt to be offensive to some speakers, who prefer an adjectival use, as for *French* or *English*.

Uninflected plurals are also found with a number of originally collective nouns, such as *crew*, which come to mean "more than one member in a group" (*these crew*) or even, for some, "a member in a group" (*one crew* in the sense 'one member of crew') (Hirtle 1982: 66). These nouns are of course of particular interest for the present study: are they still collective in that use? Why do they license such a use? These questions are addressed in further detail in the next subsection. At this stage, just note that the uninflected plural form has the same value as for the other nouns mentioned above: the referents are construed as "more than one member of a group", less individuated than if a noun that named the separate units was used. This is confirmed by a study of *those police* vs. *those policemen*, and *two police* vs. *two policemen*, in the COCA (Gardelle 2016a: § 18–19). *Those police* (16 hits) is only found in cases in which the police officers act together, react together, without any differentiation, as in (2) and (3) below. Conversely, *those policemen* (22 hits) may be used either in the same contexts, or when there is individuation, as in (4) and (5).

(2) The poor girl had a shock just now, all <u>those police</u>. I'm afraid our housemaid was quite rude.

(3) They chose a religious target, undermanned by 40 guards – and <u>those police</u> unable to cope with the riot by using teargas and nonlethal weapons […]

(4) "Cop killer" wasn't directed at all <u>police</u>. It was directed to <u>those policemen</u> who kill and mistreat Blacks.

(5) None survived. # This is a story of <u>those policemen</u> and of the members of Columbia's military that killed them.

In (4), *those … who …* differentiates the policemen within the group; (5) introduces a report on individual policemen who were killed savagely, so that *police* would be felt to be extremely insensitive. Similarly, *two police* (6 hits in subject position) was found only in contexts of professional activity (arrests, or to count victims, such as

two police were killed, and three wounded); what matters is the fact that they belong to the same socio-professional category. *Two policemen* (77 hits in subject position) was found either in the same contexts, or with a higher degree of individuation: differentiation (e.g. *The two policemen were called Patrick and Buddy*), individuation of all the protagonists (e.g. *Two policemen were dead, <u>so, too, a young girl</u>*), or mention of individual reactions (e.g. *They came back in three hours, Jeffrey's father puffing and the two policemen <u>shaking their heads</u>*).

Animals are the category of referents for which the ø morpheme is most common. A number of nouns denote either edible or game fish (e.g. *carp*, *cod*, *haddock*, *hake*, *mackerel*, *perch*, *roach*, *salmon*, *trout*, *turbot*), in which case they "almost always have base plurals", except when purchased for food or "when there is reference to individuals" (Huddleston & Pullum 2002: 1588). Many others denote game animals and birds, in which case there is "a good deal of variation in usage" (Huddleston & Pullum 2002: 1588, see also Quirk, Greenbaum, Leech & Svartvik 1985: 307–308):

- *deer*, *moose* only have base plurals. So does *sheep*: although sheep are not hunted, the fact that they are kept in flocks might have favoured low individuation.
- *bison*, *grouse* and *swine* are recorded as having base plurals by Huddleston & Pullum, but only "usually zero plural" by Quirk, Greenbaum, Leech & Svartvik; *quail* belongs here as well for Quirk, Greenbaum, Leech & Svartvik, but in the next category for Huddleston & Pullum.
- *antelope*, *reindeer*, *woodcock* have either ø or *-s* plurals; *buffalo* may be added. *Elk* is placed here as well by Huddleston & Pullum, but as "usually" taking the *-s* plural by Quirk, Greenbaum, Leech & Svartvik.
- *elephant*, *giraffe*, *lion*, *partridge*, *pheasant* mostly have *-s* plurals, except in contexts of hunting and shooting, conservation, or "when referring to collections of them" (e.g. *a herd of elephant* – Huddleston & Pullum 2002: 1588, confirmed by Toupin 2015: 101). Quirk, Greenbaum, Leech & Svartvik add crab and duck, Allan (1976: 100) *gazelle* (*two hundred gazelle*) and *bear* (*two bear*).

This list is just a sample; Toupin (2015: 101, 104) adds *snipe*, *partridge*, *pigeon* and *hare*; Hirtle (2009: 100) records occasional uninflected plurals for insects, more specifically vermin, such as *These green-fly get in everywhere* (from Jespersen 1965 [1913]), *Not many codling moth this year* (conversation), *For control of red spider* (advertisement), or *To control gypsy moth, inch worms, tent caterpillars, cabbage looper* (advertisement).

As shown by Hirtle (2009: 99), what all these animal nouns have in common is that they denote "species-animated individuals": to speakers who are familiar with the species, the referents are just specimens, rather than highly individuated entities. This is confirmed by a Google search (November 2018): despite many

occurrences of *these elephant_*, individuating strings such as *these elephant are all* or *different elephant* return no hits (whereas *these elephants are all* and *different elephants* are common). This difference in construal probably also accounts for the uninflected plural of some nouns that denote domestic animals, such as *fowl* and *sheep*.

In addition to all these, the noun *fauna* shows uninflected plural uses, like *crew* or *police* mentioned above: *these fauna* (see the next subsection).

As for inanimates, ø concerns only a handful of nouns (Hirtle 1982: 69): it is the only possible plural for *craft/aircraft* and *horsepower*, and a possibility for *aspirin*, *cannon*, *sail*, *sash*, *shot* and *ski*. Bock et al. (2006: 90) also mention plants, for botanists, as in *the rhododendron are blooming* or *the clematis have wilted*. Here again, the ø morpheme "evokes individuals as members of a collectivity of some sort" (Hirtle 1982: 69). *Three old cannon* construes the pieces of artillery as part of a battery, whereas *these cannons* refers to individual decorative pieces (Hirtle 1982: 69); *two aspirin* names the chemical as contained in two tablets (a substance manifested in separate entities), while *two aspirins* denotes two tablets which contain the chemical (two separate entities of the same nature) (Hirtle 2009: 100).

There is an element of arbitrariness in the language; for example, the uninflected plural is not licensed by just any noun that denotes vermin. In the advertisement cited above, there is no language-external reason why *moth* and *looper* should co-exist with *worms* and *caterpillars* (Hirtle 2009: 100). Moreover, compulsory uninflected plurals (e.g. *sheep*), which are potentially grammaticised, or fossilised, uses of the ø morpheme, allow for full differentiation of the units within the plurality (e.g. they license *are all different*), whereas free uses (e.g. *three elephant*) do not. Still, beyond these variations, the value of each morpheme is consistent: as mentioned above, ø marks "individuals inhering in a continuate"; "'more than one' will be represented, but always with an implication of unity in the background" (Hirtle 1982: 62). The *-s* morpheme indicates "extrapolation beyond a unit view" (Hirtle 2009: 99), "free from any impression of an all-embracing unity" (Hirtle 1982: 62).

To Hirtle (1982, 2009), these values of the morphemes go beyond the singular/plural contrast: the continuate construal associated with ø explains why it is also used with generic values (Hirtle 2009: 104), while the "perceived manyness" associated with *-s* plurals (Wickens 1992: 98) explains why it is found also in some singulars, such as *crossroads* or *barracks*, and in lexical plurals (e.g. bipartite objects, such as *jeans*, or *dribblings*). He proposes to subsume all these uninflected plurals under a single construal process: internal plurality. I suggest that the situation is more complex. In the next subsection, I propose that while the ø morpheme does mark a low degree of individuation and does imply an underlying plurality, the process does not correspond to internal plurality as defined by Guillaume (1964). I suggest not one, but (at least) two different paths of evolution in usage: one (at least)

which applies to nouns such as *elk*, which in the singular denotes an individual; and one which applies to originally collective nouns (e.g. *three crew*).

4.1.3.2   *The result of two different coercion processes: Rejection of the notion of 'internal plural'*

Let's start by laying out Hirtle's analysis, based on Guillaume (1964)'s representation of the number system, given in § 1.1.2 and reproduced here as Figure 2.
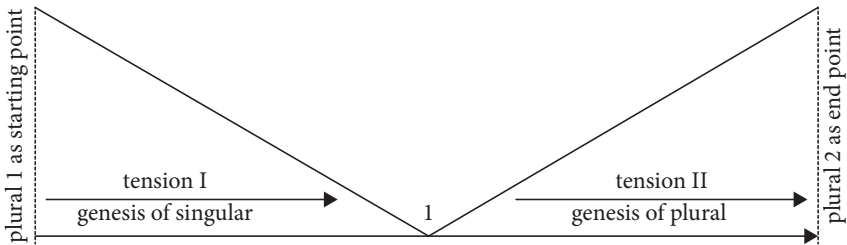
Figure 2.   The external and internal plurals according to Guillaume (1964) (my translation)

To Hirtle (1982, 2009), ø plurals are "internal plurals", corresponding to the first half of the figure, while *-s* plurals are "external plurals". For example, *people*, in the internal plural, denotes a number of individuals ("more than one member in a group"), while in the external plural (*peoples*), it denotes "more than one group". Hirtle (1982: 63) describes the process as follows. In the first movement, *people* takes a generic sense ("people in general"); then "somewhere in the middle of the movement", one finds "a number of individuals", and "at the end", a "one ethnic group" sense. Then "this final sense resulting from the first movement is carried over into the second movement where it is multiplied to provide the sense of the external plural, 'more than one ethnic group'". In addition, some nouns license a "one member in a group" sense, such as *crew* in the sense "one member of crew" (*I didn't mind being a crew and general dogsbody on his boat*, p. 66, from Juul 1975: 33).

Similarly, when the noun is not originally collective, such as *elk*, intercepting the movement "at its very first instant" produces a sense "even greater than plurality": a generic sense (e.g. *Elk have a strong characteristic smell*) (Wickens 1992: 16). The NP has maximum scope: it refers to all possible individuals. Then through a contracting movement, it passes through intermediate scope ("more than one elk"), and proceeds towards "the final limit of minimum scope": "one" elk. Then in the second movement, which corresponds to an expansion, *elks* means "more than one" elk at some medial point, and has a generic sense when the movement is intercepted "at its term, at its maximal limit" (Wickens 1992: 17).

This description of the process is very convincing for the right-hand half but, I argue (following Gardelle 2016a), is problematic for the left half, for several reasons.

First of all, for Guillaume (1964), internal plurality is an "imperfect, unfinished singular which has roots below itself"; "internal number is a construal of plurality that resolves itself ultimately as a view that is externally one, though internally several" (Guillaume, in Valin, Hirtle & Joly 1992: 96, my translation).[7] As noted in § 1.1.2, the examples he gives are *dizaine* (cf. English *dozen*) and the Old French determiner *un(e)s* (Guillaume, in Lowe 2007: 83), which morphologically resembles a singular indefinite article, *un(e)*, to which a plural morpheme *-s* has been added.[8] In Old French, *un(e)s* is only used with some nouns such as *unes endentures* ('a denture'), or *unes obsèques* ('a funeral'), and signifies both "one", via *un(e)*, and "internally many" (via the *-s*), reflecting the fact that *endentures* or *obsèques* denote a single whole (just one set of dentures, one funeral) composed of several parts that are not conceptually autonomous – what Acquaviva (2008) would call "non-simplex" elements. Due to the imperfect singular view, the units within the plurality cannot be counted. This overview shows that internal plurality is very different from what goes on with *elk* or *crew*, for which *two elk* or *ten crew* are fine.

Another potential problem is that the process is described as evolving from left to right in Figure 2. This could suggest that the uninflected plural (e.g. *crew* 'members of crew') is expected to be historically older than the collective meaning (e.g. count *crew* 'group', with sing. *crew*, plu. *crews*); but the OED (2018) shows that for all the collective nouns involved, the collective meaning was first. As for the final stage in the first movement, if the tension started from "generic" and then went through "a number of individuals", then the last stage should probably be "one member in a group" (an internal singular, cf. *one crew* in the sense 'one member of crew'), rather than "one group" – just as for *elk*, the end stage is the sense "one individual". In that case, it would become difficult to understand how this connects with the second movement, with the 'group' meaning.

Finally, the tension in the system does not seem to be from a generic *crew* ('members of crew' in general) to a single item, but from the collective meaning *crew* (plural *crews*) to naming the components – pressure from the singular of a count noun (collective) to an uninflected plural (members). This is evidenced by the differences in the combinations licensed by each of these nouns given in Tables 6 and 7 – Table 6 includes one noun for animals that has the same behaviour: *fauna* (see also §§ 3.3.3 and 5.4.2).

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7. "[S]ingulier imparfait, inachevé, qui a des racines au-dessous de lui-même" / "[l]e nombre interne est une vue de pluralité qui se résout *in finem* en une vue d'ensemble extérieurement une, quoique intérieurement multiple".

8. Guillaume (1964) also includes dual number, but this is due to a misinterpretation of the dual at the time: it was thought to construe the units as inseparable (cf. English *both*), where in fact it is just a number category that means 'two'; see Gardelle (2016a).

Table 6. Occurrences in the COCA (√) and Google Books US (○) of a sample of combinations with uninflected plurals of collective origin[9] (after exclusion of irrelevant results; search 2016) (Gardelle 2016a: § 10–12)

	these/those	*one*	*two*	*how many*	*various*	*number of*	*several*
cavalry	○					○	○
clergy	√ ○	√ ○	○	√ ○	√ ○	√ ○	√ ○
crew	√ ○	√ ○	√ ○	√ ○	○	√ ○	○
faculty	√ ○	√ ○	√ ○	○	√ ○	√ ○	√ ○
gentry	√ ○		○		○	√ ○	
infantry	√ ○			○		√ ○	
laity	√					√ ○	
military	√ ○			○			
nobility	○					○	
people	√ ○		√ ○	√ ○	√ ○	√ ○	√ ○
police	√ ○	√	√ ○	√ ○	√	√ ○	√ ○
staff	√ ○	○	√ ○	√ ○	√ ○	√ ○	√ ○
fauna	○				○		

Table 7. Additional search for *folk*, 2018

	these/those	*one*	*two*	*how many*	*various*	*number of*	*several*
folk	√ ○		√ ○	√ ○	√ ○	√ ○	○

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9. Non-count *royalty*, too, licenses at least plural agreement (in addition, there are less than 5 occurrences of *these/those*, *many* and *few* in Google Books, none of numerals or *several*), but it is a different case:

- there is no corresponding collective noun;
- it may be used for one person in sentences such as *she married royalty* (compare: *she married clergy*);
- it has a count counterpart, *royalty*, with plural *royalties* (e.g. *when two royalties meet … / he had felt like a royalty*), and rival de-adjectival count *royal/s* (*a royal, two royals*). So the aim of the non-count use is not to coin a term to name the individuals. The OED (2018) notes that count *royalty* is 'chiefly' used in the plural.
- non-count *royalty* seems to be older than the count use (c. 1500 against 1616 for the oldest example in the OED).

A diachronic study of the word would be necessary, but the hypothesis made here is that the uninflected plural sense stems from the "royal power" sense (OED sense 2), with a metonymic shift to people in that position of royal power. The aim of the ø morpheme is to mark a low degree of individuation.

Tables 6 and 7 show that the only determiners licensed by all the nouns are plural demonstratives (*these/those*). This may be due to the fact that the combination does not trigger referential ambiguity: with the collective (group) meaning, only *this/ that* is licensed when the noun does not carry the -*s* morpheme. Moreover, semantically, conceptualisation with a demonstrative determiner only requires a very low degree of individuation of the units, compared with quantities (*one*, *two*, *several*) or diversity (*various*), which are acceptable only with a few nouns. Actual numbers appear to stand one step further in the evolution of these uses: they are available for some of the nouns only. As for *one* (in the sense 'one member'), it is restricted to very few nouns, and even for these, the search returns no hits with another singular determiner. This may again be due to potential referential ambiguity (whereas *one* is rare for a group, because it is unusual to count groups). The indefinite article *a* is signalled by Juul (1975: 33) in one occurrence: *I didn't mind being a crew and general dogsbody on his boat*, but this seems extremely rare, and could be favoured by "general dogsbody", which disambiguates.

Taking these data into account, the mechanism proposed here for these nouns of collective origin, taken up from Gardelle (2018a), is not internal plurality, but "type coercion". Type coercion is defined as a rather unusual use of a word as regards its grammatical features (here, use as uninflected plural instead of singular count) (Audring & Booij 2015). The nouns originally denote groups of humans, and as such, already license plural override agreement (foregrounding of the individuals) outside the NP; the coercion stage carries over that construal to within the NP. The hypothesis made here is that the uninflected plural use is stage 3 of the following evolution:

–   stage 1: the noun has a collective sense, and takes grammatical agreement (*this crew has …*). Despite the double layer of construal (a collective whole composed of individuals), grammatical agreement foregrounds the collective whole; accordingly, the anaphors are *it* and *which*.
–   stage 2: the noun, which still has a collective sense, comes to license semantic override agreement outside the NP, in the verb and in pronouns (*this crew have … they …*), as a result of pressure from the Animacy Hierarchy. With plural agreement, the predicates and anaphors only apply to the individuals; non-additivity is lost (e.g. *the crew are big* has to ascribe the property *big* to the crew members, and may not assess the size of the group).
–   stage 3: uninflected lexical plural use (*these crew have …*). The plural NP denotes units, not a collective whole, though they are expected to belong to a group of the kind denoted by the collective sense of the noun. This is regarded as a case of coercion because the sense is not freely accessible with all collective nouns that denote humans (**these committee*), and does not allow for free

combination with determiners. Stage 3 is reached through *plural* uses (*these/those*); then only, for some nouns and to some speakers, more individuation may be licensed, including, ultimately, the singular.

Type coercion goes hand in hand with semantic coercion, from group to members, as the loss of the /count/ feature entails a loss of boundedness at lexical level – in other words, the nouns become polysemous. The shift from the collective sense to the uninflected plural sense takes place at notional level: it is a shift from the notion of group to the notion of members, rather than from a specific group to its specific members. Consequently, the uninflected plural denotes a class, a socio-professional category, albeit one in which people are expected to be members of groups (Gardelle 2016a: § 21). The noun often becomes a hyperonym of plural classes, an umbrella term for a number of jobs (e.g. *crew = cooks + stewards + sailors*, etc.),[10] so that a phrase in *be* is possible (e.g. *If she comes will she be second-mate or just crew?*, 2009, Google Books), as are *I'm crew/faculty* and *you faculty* (compare: *I'm committee, *you committee).

   Due to the hyperonymic value (members of a class, as opposed to a group), occasionally, the individuals denoted by the plural NP may not belong to the same group:

(6)   Bluewater Crew is a traditional <u>crew</u> placement agency, with an Internet-based database of over 46,000 candidates that not only tracks career moves, but also lists qualifications, current situations, locations, references, and even personal information about what each candidate is ideally looking for. This online database of potential <u>crew</u> is accessible 24 hours a day for captains and owners to search, as well as for <u>crew</u> to make updates to their files.

   (2014, Google Books, from Gardelle 2016a: § 21)

The relation to the group, though, is not lost: crew are expected to be part of crews.

   The coerced sense seems to arise from a need to find a morphologically simple hyperonym to name the units, when only compounds or complex NPs are available in the lexicon (e.g., *clergyman*, *member of the clergy*, *crew member*). This would explain why two nouns in the same cultural domain may differ in their combinational properties. For instance, the reason why *gentry* licenses more combinations than *nobility* could be that *gentry* does not have a companion word with the same stem for the individuals, whereas *nobleman* or *noble* exist for *nobility*. This would explain also why *bourgeoisie* or *aristocracy* do not have uninflected plural uses: *burgess(es)/bourgeois* and *aristocrat(s)* exist, and are even the stems from which the collective nouns were derived (Gardelle 2016a: § 12).

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10.   For further elaboration on the 'hyperonym of plural classes' hypothesis, see § 5.3.3.

The coercion mechanism does not appear to be any more cognitively costly than coining complex lexicalised phrases (e.g. *crew member*), and has another two advantages. First, the uninflected plural form emphasises the link to a group (as it contains no extra information such as 'member'). Secondly, it maps onto an existing system: in the rest of the language, ø marks a low degree of individuation of the units.

As for ø with count nouns that denote individuals (*elk* type), more specifically those that are most commonly used with *-s* (e.g. *elephant*), there might have been type coercion again in the noun, from [plural grammar + plural morphology] (*-s*) to [plural grammar without plural morphology] (ø). But the new form is regarded as grammatically correct, and for other nouns, such as *sheep*, it has become the only acceptable form. It would take a specialist of Old English to trace the process in older stages of the language, but it does seem that the process was a loss of *-s*: for *sheep*, the OED (2018) has examples of plural *sheeps* between 1581 and 1890. Likewise, for *salmon*, the OED (2018) notes that in present-day English, *salmons* is hardly used any more, which suggests that it used to be more frequent. Nouns that end in [s] or [z], such as *grouse, hippopotamus, luce, lynx, moose, plaice, rhinoceros* or *walrus*, are more complex: Toupin (2015: 100) notes re-analyses in borrowings. For instance, *rhinoceros*, a borrowing from Latin which entered the English language in the 14th century, formed its plural alternatively as *rhinoceros* (with a singular *rhinocero*), *rhinoceroses* and *rhinoceri*.

The coercion process for the *elk* type, however, is different from that at work in *crew* nouns: the aim is not to name other referents (cf. from a 'group' *crew* to members), but a minor qualitative change (loss of individuation).

In both cases, because the NPs indicate the nature of the units, not a group, they are compatible with a count collective N1 in a binominal construction (the 'organised plurality construction', see § 3.5.1): *a small group of clergy* (2004, Google Books), *a team of staff* (2007, Google Books), *a herd of elephant* (2016, Google Books). N1 gives the organising principle (a collective whole), while N2-s specifies the nature of the units. Count collective nouns in the singular would be impossible in the same function: **a team of committee*.

4.1.3.3 *These pluralities are not collective – resulting labels*

The analyses carried out above enable us to conclude that these nouns are clearly not collective. Although the individuality of the units is backgrounded when the ø morpheme is a choice, the units do not stand in a *part:whole* relationship with the plurality. This holds for the *crew* type as well as the *elk* type: it may not be said that **crew are composed of crew / members / members of crew*, or that **elephant are composed of elephants*. This is because the noun does not denote a collective whole, but a *class*: it indicates the nature of the individuals. Hence the relationship in BE, a *member:class* relation: *this individual is an elephant / she is crew*. There is

not a double layer of conceptualisation: like nouns with the -s morpheme, they do not license non-additive properties of size or shape (e.g. *these elephant are big* may not give the size of the group); similarly, *these elephant have three members* is impossible. The pluralities are cohesive, but not collective.

More specifically, three different modes of construal can be made out:

– nouns with a compulsory ø morpheme (e.g. *sheep*) denote 'groupings of fully differentiable entities', just like N-s: although the lack of -s might historically be due to a lack of individuation of the animals in the species, the associated grammatical constraints are now lost, so that they license any form of individuation of the members that N-s allow.

– nouns with a freely chosen ø morpheme (e.g. *three elephant*) denote what will be called 'groupings of non-differentiable entities'. They still take units as their starting point (the base name is *elephant*, for which dictionaries give definitions of a single individual), and so freely license numerals, but qualitative differentiation among the units is impossible, contrary to 'groupings of fully differentiable entities'. A unit is easily isolatable (e.g. *one / an elephant*), as the unit noun forms the morphological basis.

– uninflected plural uses that originate in collective nouns (e.g. *crew*) denote 'aggregates', more specifically 'aggregates of partially countable entities'. The term *aggregate* has been used in many different senses; here, it is meant as a slightly less integrated type of plurality than collective wholes – the concept will be used further for non-count nouns such as *furniture* (Chapter 5). The sense retained here follows Bache & Davidsen-Nielsen (1997: 396)[11] as well as Joosten (2010), who uses the word for nouns such as *furniture*; and it is compatible with the OED (2018)'s definition: "A complex whole, mass, or body formed by the union of numerous units or particles; an assemblage, a collection."[12] The

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11. "Unlike aggregate nouns like *people*, *crew* or *staff*, collective nouns are not 'internally countable': we cannot say *There were three family and four committee present at the meeting.*" (Bache & Davidsen-Nielsen 1997: 396).

12. It is a different sense from that used in Jackendoff's (1991) classification of material entities, in which 'aggregates' are any plurality that is not inherently bounded and yet has internal structure. Jackendoff (1991) distinguishes between only four types of material entities:

– individuals (e.g. *a book*, *a pig*): [+bounded] [−internal structure]
– substances (e.g. *water*): [−bounded] [−internal structure]
– aggregates (e.g. *buses*, *cattle*): [−bounded] [+internal structure]
– groups (e.g. *a committee*): [+bounded] [+internal structure]

The set of aggregates includes plural NPs (cf. *buses*), as well as collective nouns in the plural (e.g. *groups*, *herds*, *heaps*, Jackendoff 2012: 1141), and is therefore too broad for the present study.

term reflects the composite nature of the whole, as well as the strong cohesion among the units: because a group, not a unit, is the original denotation of the noun, the coerced aggregate use does not freely license extraction of individuals (that is, quantitative differentiation): few license low numbers, fewer still license the singular, and even there, an indefinite article hardly seems possible. Qualitative differentiation is difficult, too, although *various* is licensed by some of them. Aggregates differ from collective wholes in not having a double layer of conceptualisation: *crew are composed of [units]; this is difficult even when the group is bounded in discourse (*?the crew are composed of …*).

A final word must be said about *folk* and *people*, which have been coerced further: the semantic connection to the original collective noun is now more or less lost. For example, while *ten crew* would spontaneously be glossed as *ten members of crew*, no one would gloss *my folk* as members of a group termed 'a folk' (all the less so as the original collective sense "a people", '"a tribe", as in *the folk of the Hebrews*, is now obsolete – OED 2018), or consciously rephrase *ten people* as *ten members of a people*. Instead, rephrasing would probably yield *my relatives/family* and *ten individuals/persons* respectively. This disconnection from the original collective noun, combined with the collective origin, has consequences on the grammar of the nouns. *People* has evolved so much as to become "the unmarked plural form of *person*, whereas *persons* emphasizes the plurality and individuality of the referent" (OED 2018). Consequently, unlike *crew / clergy* and even *folk*, it freely licenses qualitative differentiation and all forms of plural combinations that N-s may have (e.g. *two very different people*). The contrast with *persons* mentioned in the OED quote, as well as the fact that *people* has not extended to the singular in that sense (*one people for 'one person'), are the only traces of the coercion process that took place in older times. As for *folk*, a morphologically marked plural form *folks* emerged in the 14th century, and has been "the ordinary form" since the 17th century (OED 2018); *folks* has the same syntactic properties as *people* (free plural determination, possibility of qualitative differentiation, e.g. *two different folks*, and no singular form: no occurrences of *one / a folk* could be found in either Google Books or COCA). In terms of construal, *folk* will be regarded as an aggregate noun, like *crew* and *clergy; folks* and *people*, on the other hand, denote groupings of fully differentiable entities, like *sheep* in its plural uses, but do not have a singular form.

The study now turns to other ways of marking pluralities of units at discourse level.

4.2   Other ways of denoting pluralities of units through discourse-acquired features

4.2.1   Conjoined NPs

Conjoined NPs are NPs that are coordinated – typically with *and* (*or* does not result in a plurality) or, in negative sentences, with the correlatives *neither … nor …* . They make take very different forms, such as *John and Mary* (proper names)*, a bag and a wallet* (indefinite NPs in the singular)*, one bag and two wallets* (NPs that contain numerals), *an oak and other trees* (a singular and a plural NP), *this deck of cards and that one* (NPs headed by a collective noun, or a pro-noun), or *neither Mary's bag nor Janet's* (negation).

With *and*, the verb necessarily agrees in the plural. But with *neither … nor …*, usage varies. The official rule is that, as with *either … or …*, the verb agrees in number with the second coordinate: *neither he nor his wife has arrived / neither the brakes nor your eyesight is at fault / neither your eyesight nor the brakes are at fault* (Quirk, Greenbaum, Leech & Svartvik 1985: 762). This proximity rule is a compromise prescribed by grammars for the insoluble problem raised by the combination of a singular and a plural coordinate. *Or* being disjunctive, each coordinate is "separately related to the verb rather than the two members being considered one unit", so that number agreement could not be solved through normal grammatical or semantic agreement. But in "less formal usage, [*neither … nor …*] are treated more like *and* for concord": *neither he nor his wife have arrived* is more common than *neither he nor his wife has arrived* "in natural speech" (Quirk, Greenbaum, Leech & Svartvik 1985: 763). As suggested by Quirk, Greenbaum, Leech and Svartvik (1985: 763), the informal preference for the plural may be regarded as semantic agreement ("notional concord"), at NP level: "'neither X nor Y' can be interpreted as a union of negatives: 'both (not-X) and (not-Y)'."

Beyond the issue of agreement, one central question raised by formal semantics is whether a conjoined NP (e.g. *the cows and the pigs*) denotes a set of sets (a cow set and a pig set) or a union ("the set of all the cows and pigs", close to *the animals*) (Schwarzschild 1996: 44). An additional question for the present study is whether the construal conveyed by conjoined NPs differs from that of N-s or count collective nouns.

Conjoined NPs, like the other two modes, license collective predications: *John and Mary are a happy couple* (Lasersohn 1995: 81). They also license distributive readings of the VP, again like N-s and animate count collective nouns: *John and Mary are asleep* (similarly, *the children are asleep*, and *the plaintiffs alleged that the audit committee was asleep at the switch*, 2010, Google Books). In other words,

conjoined NPs exhibit cohesion among the units, while allowing access to the individual units.

The construction of the plurality in the NP, however, differs from that of N-s in two respects. First of all, while N-s impose a similar nature for all the units, conjoined NPs do not: each coordinate has its own noun, and therefore its own categorisation. For instance, *slugs and snails* does not subsume the units under a single umbrella term such as *animals*. If the two referents are of the same kind, there has to be some difference between the entities: owner (e.g. *your bag and mine*), place (e.g. *the scarecrow in this garden and the one next door*), etc. Of course, there is some form of semantic link between the coordinates; otherwise, they would not be conjoined, considered together as participants in the event. In this, conjoined NPs differ from coordination of clauses (e.g. *John came and so did Mary*: each event is considered separately, though related to the other) or parataxis (e.g. *John came. Mary was in the garden*: this is an even looser form of connection, established only because of an inference of relevance; there is no explicit link between the two items of information). But with conjoined NPs, the connection is still a loose one, in the sense that it does not background the differences in nature.

This has consequences on the interpretation of collective predications: each coordinate must contribute participants, without exceptions. Let's compare *the Romans invented the acqueduct*, and *Cassius, Lipidus, […] and Ovidius invented the acqueduct*: not all Romans have to have invented the acqueduct in order for the first sentence to be true, whereas if Lipidus, for instance, did not take part, then the second sentence is false. Similarly, in specific contexts, occasional exceptions are often tolerated with N-s: Lasersohn (1995: 105) notes that *the children are asleep* is held true "even if some very small portion out of a large group of children is awake", because that portion is "pragmatically disregardable". *John, Lucy and Tim are asleep*, on the other hand, would have to imply that each child is asleep – otherwise, the sentence is false.

A second difference between conjoined NPs and *N-s* is behaviour with floating quantifiers. *N-s* may both be the object of a partitive quantifier (e.g. *all of …, both of …*), and license the quantifier in VP modifier function (Schwarzschild 1996: 147): *all of the strings have knotted ends / the cords and the drawstrings all have knotted ends*. Conjoined NPs, on the other hand, may not be the object of a partitive quantifier, yet are compatible with the quantifier in VP modifier function: *all of the cords and the drawstrings have knotted ends / the strings all have knotted ends*. This difference, it is proposed here, is due to the fact that an initial quantifier in a partitive construction may not have scope over several NPs: even with plural coordinates, *all of the slugs and the snails* is odd because *all* would only have scope over *the slugs*. *All* as a VP modifier, on the other hand, is processed

only once the conjoined NP itself has been processed; the plurality has become cohesive, like N-s.

Consequently, as with N-s, when a predicate is assigned, a plurality denoted by a conjoined NP may be regarded as a single set of participants (it licences a collective predication: *A, B and C repaired the roof*), or take relational collective properties (*A and B hate each other*), or take distributive predicates (*A and B are happy*). Link (1998: 27) shows that two of these readings may be found in the same sentence: in *The boys and the girls had to sleep in different dorms, met in the morning at breakfast*, for example, the subject NP has both to stand as sum ('meet') and to distribute one level down ('sleep in different dorms').

As can be seen from this sample, depending on the predicate, the conjoined elements may be considered together, or contrasted with each other; *slugs and snails are different*, for instance, is interpreted by default as slugs being different from snails (and vice versa). This is due to the separating role of *and*, so that this default interpretation is not that of N-s: out of context, *insects are different*, for instance, may be understood either as different from one another, or as different from something else that was mentioned previously.

When the two nouns share a single determiner (e.g. *a mother and child*, *the knives and forks*), there is more integration of the units. The connection between the two elements is more obvious, as the single determiner construes them as part of the same semantic field (*the knives and tables, *the knives and plates). Because there is a single phrase, partitive quantifiers become acceptable (*all of the knives and forks*), but on condition that each of the nouns denotes a plurality (*all of the mother and child). Finally, the predicate *are different* no longer compares the two elements within the plurality (?*a mother and child are different*, *the knives and forks are different*), because the determiner has brought them together. The major difference with N-s is still that because there are two nouns, the units are construed as being of two different natures.

In sum, conjoined NPs are one of the loosest forms of integration of units in a plurality. The label proposed here for what conjoined NPs denote is 'a set of loosely connected elements' – each 'element' is what is denoted by a coordinate; it may be an individual, a collective whole, a grouping, and so on. An alternative concept would have been 'sum', reflecting the enumeration at work in coordination, but as the word is often used for *N-s* (e.g. Link 1983; Lammert 2014), it might cause terminological confusion.

In terms of construal, these NPs stand far from count collective nouns: like *N-s*, they license differentiation of the units (at least differences between the elements on either side of the coordinator); they also license access to the parts of the units through a possessive determiner (*John and Mary washed their hands; slugs and snails ... their slimy mucus*); they do not show a double layer of conceptualisation

(*slugs and snails are composed of [units]). Unlike N-s, the units are not homogenized, which makes them stand further apart from collective nouns on a Scale of Unit Integration.

4.2.2 Partly substantivised adjectives

Another way of denoting pluralities of entities is via phrases such as *the English* or *the rich*, that is, by using adjectives as heads of noun phrases. The traditional label, "substantivised adjectives", has been criticised because for most terms, the part of speech of the head noun remains 'adjective', and not 'substantive' (vs. *an American*). Quirk, Greenbaum, Leech and Svartvik (1985: 421) prefer the term "adjectives [functioning] as heads of noun phrases"; Huddleston and Pullum (2002: 417) opt for "fused modifier-heads", on the basis that the adjective instantiates both the modifier and head functions.[13] I have chosen to stress the "categorial distortion" (in the sense of Goes 1999), or "quasi-conversion" (Biber et al. 1999: 519) that these adjectives, whose use as heads of NPs is often conventionalised, have undergone: they serve to name a category. The term used will therefore be "partly substantivised adjectives": the words are still adjectives, but with additional characteristics that prototypical adjectives do not share.

As a consequence of this choice of term, it will be considered that the partly substantivised use is inscribed in the lexical content of the adjective, which is not a prerequisite of the "modifier-head" approach. It has to be head of NP for such interpretation, which is not the case for collective or aggregate nouns; it is in this sense (and to take into account modifier-head approaches) that it is part of this chapter on discourse-acquired plurality.

The adjectives concerned here are more specifically those that head NPs that denote human beings, such as *the English* or *the rich*, as opposed to abstract notions such as *the impossible* or *the unknown* – which do not denote pluralities. This distinction once again reflects the influence of the Animacy Hierarchy: human beings, at the top, are more highly individuated. It is also worth noting that partly substantivised adjectives do not seem to be used at all for animals.

As regards construal, it is the NP as a whole that denotes a plurality of units. The adjective itself (or a past participle used as an adjective, such as *unemployed* or *gifted*), typically without any lexical addition (e.g. *the English*) but occasionally with a complement (e.g. *the young at heart*), denotes a quality that serves as a basis for the category. Evidence of this adjectival status of the head is its capacity to take

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13. There are other types of uses of adjectives as modifier-heads, such as *the last* or constructions such as *Lucie likes young dogs, but I prefer <u>old</u>*, but of course these do not denote pluralities.

adverbs as modifiers, to restrict type (e.g. *the very poor*, *the intellectually gifted*) (Huddleston & Pullum 2002: 418) – although some license adjectives for comments (e.g. *the wretched poor*, Quirk, Greenbaum, Leech & Svartvik 1985: 422, *the real working poor*, Biber et al. 1999: 520).

Beyond this apparent homogeneity, there is a whole gradient of distortion, of partial nominalisation, with different adjectives standing in different positions on that gradient (Quirk, Greenbaum, Leech & Svartvik 1985: 421; Gardelle 2007). Substantivisation is complete only when the word becomes fully count (e.g. *one American*, *three Americans*), which also brings the possibility of free determination (e.g. *an/this/the American*, *a few/several/two Americans*). A closer look at the gradient gives a better understanding of the 'pressure' at work in the language.

4.2.2.1   *A four-stage gradient of nominalisation*
The gradient may be illustrated as follows. The first stage of categorial distortion ("type 1") is closest to the prototypical uses of adjectives; the last one is full nominalisation (that is, the word has become a noun) (Gardelle 2007) (Figure 3). The syntactic properties of one type include those of all the types to its left.
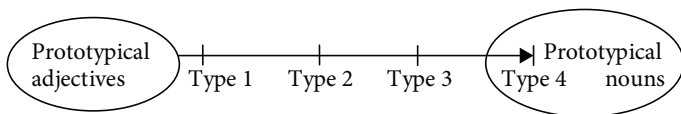
Figure 3. The gradient of nominalisation for partly (or fully) substantivised adjectives

This subsection examines the four types of distortion in turn, then more general conclusions are drawn.

Type 1 is illustrated by *the rich* or *the English*. The only possible determiner is *the*; the NP does not license the genitive (*the English's customs); and the NP may only refer to a group as a whole (*most rich, *three English), though Quirk, Greenbaum, Leech and Svartvik (1985: 424) note occasional cases such as *two Boston Irish*. There is fusion of the head and modifier functions, not ellipsis of the head noun: addition of a noun renders *the* impossible with the same reference. For example, *the English* is close to *English people*, not to *the English people. The* is not just used to signal that the adjective is being used as head of an NP; it implies that the class is selected within a broader set that includes at least one other class. Hence a preference for *the English* in (7) below, owing to the explicit contrast with *us* (Americans), but for *English people* in (8), in which the scene does not offer any contrast with another nationality.

(7)   The English are crazy about the Lake District. "It's the most beautiful part of England," they kept telling us. (2013, Google Books – written by an American)

(8) There was a holiday-like atmosphere in the ante-room to the operating thea-tre – Kate and Clare were there, and someone made tea, on the premise that the one thing <u>English people</u> always want is tea. (2007, Google Books)

Consequently, not all adjectives may become fused modifier heads: as noted by Quirk, Greenbaum, Leech and Svartvik (1985: 421), they are usually restricted to "fairly well established classes of persons, *eg: the brave*, *the weak*, *the maladjusted*, *the elderly*, *the underprivileged*" (compare: *the adjusted, *the middle-aged). Larreya and Rivière (2005: 219) note that in context, some more adjectives may be used in this way, especially if a contrast is established, as in (9) or (10):

(9) On the boat, <u>the homeward-bound</u> looked at <u>the outward-bound</u> with envy.
(from Larreya & Rivière 2005: 219)

(10) The visitors began to filter through with their offerings stashed away in Sainsbury or St Michael carriers, and, some few of them, with bunches of blooms for <u>the newly hospitalized</u>. (Dexter 1990: 80 – the focaliser is a patient)

In examples (9) and (10), reference is not to all the people in the world who are homeward- or outward-bound, or newly hospitalised, but to the groups on one specific boat or in one specific hospital.

Type 1 includes a few adjectives which coexist with equivalent nouns, such as *innocent*: in the plural, *the innocent_* (partly substantivised adjective) coexists with *the innocents* (noun) – similarly, *the undecided/s* or *the faithful/s*. The two NPs are co-referential, but the adjective foregrounds the quality ('people who are innocent'), as shown by the following sample (from Gardelle 2007):

(11) not only are the guilty found guilty but the innocent_ are exonerated if false charges are made.

(12) Unfortunately the innocent<u>s</u> get hurt, never the criminals behind the scenes.

In (11), the contrast is with another group referred to with an adjectival head, whereas in (12), *criminals* is a full noun. Although with *innocents*, the main semes are /innocent/ and /people/, the noun seems to denote a fuller notion, with possibly connotations – here, injustice. Similarly, with *faithful*, Gardelle (2007) finds that in the British National Corpus, only *the faithful* is used to denote a religious group, and that it is used predominantly for this, as in (13), while *the faithfuls* is found in metaphorical uses only, as in (14). This could be because in the religious domain, the faithful are characterised primarily by the quality /faithful/ ('people who are faithful / who have faith'), whereas elsewhere, the noun takes on additional conno-tations (a follower, someone who will not betray the group).

(13) In November of each year the Nail is brought to the floor of the cathedral so it may be seen by the <u>faithful</u>.

(14)   It seems Rover is now keeping faith with old <u>faithfuls</u> but analysts are looking more at the motives rather than the marketing.

Slightly further along the gradient of nominalisation is type 2, illustrated by *injured* or *unemployed*: in addition to *the*, these heads license numerals (e.g. *there were two dead and three injured in the accident; 7 million unemployed*), but not the genitive (**the injured's car*) or singular reference (**an unemployed*).

   Further still is type 3, illustrated by *accused* or *deceased*: in addition to *the* and numerals, the heads license singular reference and the genitive, as illustrated by (15)–(16) and (17)–(18), from Gardelle (2007); but they may not take the morphological plural (**the deceaseds*) or free determination (e.g. **several accused*).

(15)   <u>The accused</u> is dishonest is his conduct is dishonest.

(16)   [...] <u>the deceased</u> had made a previous will in which the respective positions of his wife and his mistress had been exactly reversed.

(17)   The destruction of property or the accus<u>ed's</u> putting his hand over money in the victim's pocket will be an usurpation of one of the rights of the owner.

(18)   Inheritance tax is levied on the value of <u>a deceased's</u> estate on the date of death.

The last stage (type 4) is full nominalisation, illustrated by *American*: the heads are true nouns, converted from adjectives. Consequently, *the American*, for instance, has singular, not plural, reference. There are two morphological subtypes. Most nouns, like *American*, *innocent* or *faithful*, form their plural with *-s*; a few, like *Chinese* or *Greek*, are morphologically invariable (compulsory ø morpheme, as for *sheep*). In English as a whole, as was seen earlier in the chapter (§ 4.1.3.1), the ø morpheme typically marks a low degree of individuation, so that some of these uninflected plurals are sometimes regarded as offensive – some speakers prefer *Chinese* + N to *Chinese* for plural reference, for instance, as noted above (Huddleston & Pullum 2002: 1588).

   Type 4 nouns may denote nationality (*Americans*, *Greek*), social ranks (*nobles*), classes defined by skin colour (*blacks*, *whites*) or gender (*males*, *females*), members of political parties (*Liberals*), and so on – for further examples, see Jespersen (1965 [1913]: 234). Jespersen also notes that some deadjectival nouns are so common today that they are no longer felt to be converted from the adjectives; examples are *a fanatic* or *a third*, for which the corresponding adjectives still exist in the language, or *fiend* and *friend*, derived from past participles of lost verbs that meant 'hate' and 'love'.

   This whole gradient of nominalisation, it is proposed here, is often the result of pressure on the linguistic system to categorise individuals (i.e., to find a noun, or an element that can act as some form of noun-like category, to name them), on the basis of a salient property. This is what § 4.2.2.2 turns to now.

4.2.2.2 *The result of pressure to categorise individuals*

The overview of types of partly substantivised adjectives suggests that most cases of distortion for types 2 and 3 are motivated by discourse needs. It is no coincidence that *injured* or *unemployed* license numerals: *injured* is mostly used in the context of crashes, for which the number of casualties is typically mentioned, while unemployment figures are published regularly. By comparison, *deceased* or *accused* do not commonly require numbers; it is singular reference that is very common, in the context of funerals and trials respectively. That is why they have come to license a singular determiner and the genitive case, whereas the distortion has not been extended to other syntactic properties (free determination, *-s* morpheme). In other words, the distortions are specific adjustments for recurring discourse configurations, because the individuals referred to are felt to be part of a group of similar individuals (so that the need for a linguistic category is felt), and because adjectival use (e.g. *the deceased man*) is cumbersome when the noun is uninformative, serving as mere support for the adjective.

It is more difficult to see why the adjectives in type 4 are those that have been nominalised, or why some type 1 adjectives have not acquired more nominal properties. There is a measure of arbitrariness, as well as language-internal factors. For instance, past participle morphology seems to block full nominalisation (they belong to types 1–3, not 4). Or among nationality adjectives, all those in *-ish* are of type 1 (e.g. *English*, *Swedish*), those in *-an*, *-i* or *-ese* of type 4 (e.g. *American, Hungarian; Israeli, Bengali; Japanese, Sudanese*) (Berland-Delépine 1995: 344–346). Semantic groupings occur as well (though not, for instance, for nationality): adjectives that denote colours (e.g. *black, green*) or gender (*male, female*) become nouns (type 4), while those that denote other types of individual properties (*rich, poor; sick, deaf; innocent, guilty; faithful*; etc.) belong to type 1.

There is no evidence that an adjective in type 3 or 4 has gone through the other stages of the gradient before it reaches the type to which it belongs today: the OED's (2018) examples do not show a shift from plural-only to possibly singular reference. Rather, it seems that a given adjective acquires a selection of nominal properties depending on its recurring contexts of use in discourse. Further evidence seems to be provided by political parties: given that adjectives such as *Liberal(s)* are type 4 words, it seems that a new adjective will automatically enter type 4. This was the case of *green(s)* (e.g. *for the first time a Green was elected to the House in a general election*). Conversely, ad-hoc creations may only denote pluralities; for instance, *the homeward-bound* in (9) above would not be licensed for singular reference because no recurring need has emerged in general English usage.

4.2.2.3   *What construal of the pluralities?: A gradient from aggregates to groupings*

For type 1, Biber et al. (1999: 248) propose a "collective reference" to the NP. But the most appropriate label in the typology established so far is "aggregate" reference: the NPs, despite contextual bounding (*the*), do not show the double layer of conceptualisation that is characteristic of collective wholes. For example, *the British are composed of …* returns a single hit in a Google search, and *the poor are composed of …* returns only two (October 2018). Instead, the NPs are very close to those headed by uninflected plural *crew*: qualitative differentiation is difficult, or even impossible (e.g. *the rich are different* may not mean there are differences within the set; *the various rich* is impossible; Google returns no hits for *the rich are all alike / similar / the same*), which is no surprise since the starting point, as for *crew*, is the plurality, not a unit noun. Unlike *crew*, the units cannot be counted at all (*three rich*). Type 1 NPs will therefore be said to denote 'aggregates of units/entities that cannot be counted'.

Type 2 and type 3 NPs (e.g. *two injured*, *a deceased*) are similar to *crew/clergy*: they denote 'aggregates of partially countable entities'. Qualitative differentiation is still impossible (e.g. *two different injured*, *the injured are all different*). As for type 4 NPs, like any N-s, they denote 'groupings of fully differentiable entities'.

Partial nominalisation, or conversion (type 4), is not the only way to create categories that name the individuals for many of these adjectives. The pressure on the linguistic system may also exploit other linguistic means. A full study is beyond our scope, but the next subsection considers alternative coinage patterns that produce true (count) nouns out of the adjectives studied in types 1 to 3 above – a reader interested strictly in pluralities might want to skip the subsection and go straight to § 4.2.3. The aim is to set partly nominalised adjectives against other means of adjective-based nominalisation, to show that they have their semantic specificities among word-formation processes. Conversion is left aside, as it corresponds to type 4 above.

4.2.2.4   *Competing solutions for the same adjectives*

A first word-formation process is derivation through the *-ie* suffix, as in *deafie*, *sickie* or *Frenchie*. The *-ie* suffix, regarded by the OED (2018) as a variant of the *-y* suffix, is very productive elsewhere in the language, to produce two-syllable count nouns with an affective value: *dearie*, *grannie*, *bookie*, *boatie*, *brekkie* (breakfast), *nordie* (someone living in Northern Ireland), and so on. As a result of this affective value, for the adjectives under study here, the corresponding *-ie* noun is rather colloquial (or at least informal), and has affective connotations, which makes it unsuitable to name the whole category 'neutrally'. *Sickie* has taken on the specialised sense of 'deviant'. *Frenchie* is derogatory, and seems to be used only by people

who are not themselves French or Canadian French. *Deafie*, which was apparently first used in Trinidad & Tobago in 1972 (Dalzell & Victor 2015, entry *deafie*), but is now found in Britain and the US as well, is partly different: it is widely used in the Deaf community (though 'deaf folk', 'deaf people', 'the deaf', are found as well). A parallel *hearie(s)* has been coined, and similarly, one blog mentions that in the blind community, some speakers call themselves *blindie(s)*, and call other people *sightie(s)* (All Deaf 2008). But due to the affective value, a look at reactions on various forums suggests that to a majority of contributors, use by an outsider (except friends) would be felt to be offensive.

Alternative word-formation processes are found for the few problematic nationality adjectives in *-ish*. The potentially problematic subset is the following: *British*, *English*, *Irish*, as well as *French*, *Dutch* and *Welsh* – for many others, a noun already exists, as they are derived from the noun for the inhabitants (e.g. *Swede(s)* → *Swedish*, *Scot(s)* → *Scottish*). The main solution used to be compounding in *-man* (with a reduction of the vowel for all but *British man*). Due to potential discrimination in gender-undifferentiated contexts, contemporary guidelines recommend that this form should be avoided there. Another option has been derivation with *-er*, but it has never spread as a unique form. The OED (2018) notes that *Englisher* and the older *Englander* are "not self-designation[s]"; *Britisher* is "now North American and archaic"; *Welsher* is "obsolete" and a "nonce-word"; *Dutcher* is "rare" and was used for Germans, after *Deutscher* and *Dutch* (which used to have 'German' as one of its senses); *Frencher* is "depreciative" (and there are no occurrences on Google Books). *Irisher* is the only one that is found in contemporary Google Books documents: it seems to have specialised in what used to be its second sense, "person of Irish descent" in the US.

It seems that today, the elimination of *-man* compounds has caused a return to adjectival uses of the *-ish* terms: *a French person*, *being French, …*, except in Ireland and Britain, where pressure for categorisation has led to coinage of full nouns for people of the corresponding nationality. In Northern Ireland, while *Northern Irish* is found as an adjective, the Irish variety has count *northener(s)*, as this part of the island is typically referred to as "the North". Similarly, *southerner(s)* is used for people in the Republic. For British people, two count nouns co-exist – with specialised uses. One is *Briton*, originally for pre-Roman inhabitants of southern Britain, then extended to "British people in the Empire", and later to "British people" in general; Huddleston and Pullum (2002: 1694) note that it is "not widely applied", which is probably to be expected as the *-on* ending does not correspond to a morphological pattern of English. It is the only noun denoting a British person that is not informal; it is found in a lot of written documents (Google Books search 2018), and is widely used in the *Guardian*, in the politics, current affairs and society sections (e.g. "Second Briton says he wants to be allowed back to UK from Syria", 22 February 2019).

The other noun is the clipped *Brit*. It was first used in the 19th century, but was rare until "the second half of the 20th century" (OED 2018). It is now used in the whole English-speaking world: Butterfield (2015, entry *Brit*) notes that only half the uses in the Oxford English Corpus are "from British sources", and cites examples such as *Brit actor Gil Kolirin* (2008, Australian example). Huddleston and Pullum (2002: 1694n) describe it as "a colloquial term"; and as a consequence of informality, it has an affective charge. As with nouns in -*ie* (cf. *deafie*), some British people feel that use of *Brits* by outsiders would be derogatory (various forums, search 2019); one post compares this with calling an American a "Yankee". Within the British community, connotations may be positive or negative: the *Guardian*, for instance, has both titles conveying a positive connotation of proximity (e.g. *You and your money: how Brits look after their finances*, 4 March 2019; *Where do Brits go on holiday, and who comes on holiday to Britain*, 30 July 2016), and titles with pejorative connotations, especially when talking about behaviour abroad, as in *Why Brits got the bug for holiday sickness scams* (31 July 2017).

The noun *Brit/s* is likely to continue to gain ground in everyday use and in the media. First, it maps onto the linguistic system: it follows the pattern of *Swede/ Swedish*, *Scot/Scottish* and the like, by making the adjective look derived from a base that names the inhabitants. Secondly, the noun is short and count, allowing for all forms of individuation. Thirdly, it lends itself to modifier uses, such as Brit Awards. Butterfield (2015, entry *Brit*) suggests that "[t]he Britpop and Britart movements of the 1990s, and the existence of the Brit Awards, may have helped make the word more current in general use." In addition, the prefix *Brit-* in music, art, design, etc. is "perceived as fashionable, innovative, or influential" (e.g. Britlit, Britrock).

In sum, what this overview of seemingly competing terms shows is that partly substantivised adjectives, despite their unusual clusters of grammatical properties (part-nominal, part-adjectival, at various stages of a gradient), have the advantage of denoting neutral categories to name the individuals. This specificity means that they are not redundant with co-existing nouns, at least in present-day English. The overview also shows how amazingly constrained adjective-based noun coinage is in the linguistic system of English.

4.2.3 Quantifier + singular count noun

A last, very different way of denoting a plurality of units is to combine a singular count noun with a quantifier in a bound variable reading: *every*, *each*, *no*, *any*, *many* (followed by *a*). For instance, *Every car had its windscreen smashed* may be glossed as "for every x, x had its windscreen smashed" (Evans 1977).

The construal is very different from the other cases seen so far in the volume. Because the head noun is count singular, the mental representation is of one unit at a time. In bound variable readings, it is through the scanning operation (reviewing the members one by one without selecting one in particular, Culioli 1990: 121) that the existence of a plurality of units is inferred. The reading of the NP itself is singular, not plural: a collective predication is impossible (*every student met in the hall), and within the same clause, agreement has to be singular (*many a blow <u>was</u>/*were dealt; every car had <u>its</u>/*their windscreen smashed*). The plural set is there in the background, though. First, for humans, an anaphoric possessive determiner may take plural agreement within the same clause (e.g. *every girl has <u>their</u> own personality*, 2013, Google Books), though this seems to be (or at least, until recently, to have been) impossible in specific contexts (e.g. ??*Every tourist had their cameras at the ready*). Secondly, beyond clause boundaries, plural anaphoric expressions become compulsory when there is a shift from bound variable reading to actual reference (e.g. *It seemed like every car was flying by us. <u>Some</u> honked*, 2013, Google Books). The label proposed here is that these NPs denote 'a bound variable singularity'. It represents the lowest degree of integration of the units achievable through a single NP, and a borderline case of plurality.

The study will not consider parallel structures, such as *door to door* or *from car to car*, which presuppose that there are several units in total. In these constructions, the idea of a plural set is achieved by repetition (the nouns have to be identical, e.g. *from car to door), and by the bare NPs: what matters is lack of qualitative differentiation. The cars are no longer considered as individual vehicles, but apprehended at type level (Cotte 1996: 214). Besides, these phrases typically cannot *refer* to pluralities, as they can normally only be adverbials (though some, such as *a head-to-head*, get nominal status).

As for adjectives such as *other* or *second* (e.g. *from one car to another*, *a second car*), they will not be regarded as forming plurality-denoting NPs: *one car*, *another* and *a second car* refer to singular units, and in *from one car to another*, these singular units are considered successively.

4.3   Conclusion

The aim of this chapter was to understand how plurality is construed when it is denoted via discourse features, in order to compare these configurations with collective nouns and NPs headed by them. It has shown that discourse-built plurality was by no means achieved only by the plural morpheme *-s*, and that there were various modes of construal.

If collective wholes stand at one extreme of a Scale of Unit Integration, at the other end are 'bound variable singularities' (e.g. *every car*), which, being singularities, are not cohesive and so do not license collective predications. The next type is 'sets of loosely connected elements', denoted by conjoined NPs. Next come 'groupings of fully differentiable entities', typically realised as *N-s*, which includes irregular plurals (*mice*, *children*, or nouns with compulsory ø endings, such as *sheep*). 'Groupings of non-differentiable entities' (e.g. *three elephant*) show slightly more integration, as qualitative differentiation is impossible; but the units can be counted. The next stage of unit integration comes with restrictions on quantitative differentiation; this yields 'aggregates'. They may be 'aggregates of partially countable entities' (e.g. *two injured*, *these crew*), for which some nouns become hyperonymic (e.g. plural *crew*), denoting a class; or 'aggregates of entities that cannot be counted', when no numeral is licensed (e.g. plural *military*, *(the) rich*). A collective whole requires more integration, in the form of a double layer of conceptualisation.

A specificity of count collective nouns, in comparison with these, is that they denote the collective whole at lexical level, and that the nature of the whole differs from that of the units (e.g. a *committee* is not composed of *committees* – it is composed of people, or at best, sub-committees). It remains to be seen now whether other, non-count, nouns at lexical level may qualify as 'collective,' and if not, whether they share any modes of construal with some of the NPs considered in this chapter. Chapter 5 first considers singular non-count nouns, then Chapter 6 will address plural-only nouns.

Non-count singular nouns with a /plurality/ feature

Although non-count singular nouns prototypically denote substances (e.g. *water*), some denote pluralities of units (e.g. *furniture*, *crockery*); they are the focus of the present chapter. They are of special interest for several reasons. First, the last twenty years have seen a seemingly insoluble debate as to whether nouns such as *furniture* or *crockery* should be included in the category of 'collective nouns'. This results in different positions in different grammars: to Huddleston and Pullum (2002: 336), they denote "heterogeneous aggregate[s] of parts", while Greenbaum (1996: 456) considers them "collective nouns". After reviewing the arguments on either side, the present study will offer new arguments which, by setting these nouns against the broader perspective of pluralities of units, will allow for a more definite conclusion.

Secondly, due to the focus on nouns that denote pluralities of heterogeneous entities (henceforth called '*furniture* nouns'), research on English has ignored pluralities of homogeneous entities (e.g. *foliage*, *hair*). The question will therefore be whether they, too, might be collective or aggregate nouns. Thirdly, no mention is ever made of non-count uses of nouns for humans, such as *do what <u>management</u> wants* (2015, Google Books). They license hybrid agreement; are they collective nouns?

Before these questions are addressed, a note is required on the term "non-count singular noun", which though common, is not used in all theoretical frameworks. This is the focus of § 5.1. In Cognitive Grammar, Langacker (2008) opts for "mass" rather than "non-count", and "non-plural" rather than singular; it is argued here that "non-count" and "singular" are more appropriate for the specific purpose of this study. Sections 5.2 and 5.3 then focus on *furniture* nouns, reviewing the arguments on either side and taking the debate one step further. A tentative list of these nouns is also provided for future reference. Section 5.4 extends the analysis to other singular non-count nouns that denote pluralities of entities: other inanimate pluralities (pluralities of homogeneous entities), animals, and humans.

5.1   A note on terminological choices

As stated at the beginning of Chapter 3, "non-count nouns" should be taken as a shortcut for "nouns with a non-count feature". This will not be reconsidered here. What this section considers, rather, is the notion that *furniture* nouns are "non-count", as well as the preference for "non-count" over "mass", and for "singular" over "non-plural".

5.1.1   'Non-count' as a matter of variety of English

A search of Google Books for *furnitures* or *crockeries* returns hits; so a word must be said about the alleged 'non-count' status of *furniture* and *crockery*. This, examination soon reveals, is a matter of variety of English. In some outer circle varieties, that is, countries in which English is not the first language, some nouns, including these, have been reanalysed as count. This is the case in Singapore English (Deterding 2007: 42) and colloquial Singapore English (Lim 2004: 63), as illustrated by the following examples:

(1)   (from Deterding 2007: 42)
  a.   so I bought a lot of <u>furnitures</u> from IKEA.   (NIECSSE)[1]
  b.   my Dad brought me to Balestier to buy <u>lightings</u> for the new house.
                                                                                (blog, 2006)
  c.   I had to borrow some … winter <u>clothings</u> from er … my husband's erm … boss I think he was the boss.   (NIECSSE)

The innovative /count/ feature is not specific to *furniture* nouns: *tuition*, for instance, is also count. This does mean that Singapore English does not have the count/non-count distinction: many other nouns have remained non-count (e.g. *I will waste my money / three weeks experience*, Deterding 2007: 43). Rather, there are adjustments, the motivations of which are obviously complex and would have to be studied separately; the fact that a *furniture* noun denotes a plurality of *entities* might be a factor.

Van Gelderen (2006: 260) very briefly mentions the same process in Ghana: "In East Asia and West Africa (Ghana), *furniture* is regularized to *furnitures* in the plural and *luggage* can also have a regular plural *-s*." Huber and Dako (2008: 375), in a specific study of Ghanaian English, have a similar comment: "A number of

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1.   NIECSSE is the National Institute of Education Corpus of Spoken Singapore English. It consists of 46 five-minute interviews of educated Singaporeans by Detering, a British university lecturer.

non-count nouns are persistently used as count nouns in Ghana. These include *accommodation*, *advice*, *correspondence*, *equipment*, *furniture*, *luggage* and *work*." They give the example of *five luggages* or *the furnitures*. This seems to be more generally a feature of WAVE (West African Vernacular English). Crystal (2003: 362) mentions Nigeria, Zambia, as well as India "and many other places". Kortmann et al. (2004: 763, 932) have examples in Hawai'i Creole and in the *Fiji Times*.

Outer-circle varieties of English are not considered in the present volume, but they definitely deserve a specific study, in relation to the count/non-count distinction. What they show is that the /non-count/ feature should not be taken for granted: construal is not so much imposed by the characteristics of 'real-life' elements (though these characteristics do play a part) as by the way language construes and names that reality. Similarly, as is well-known, different languages may impose different construals of a given reality; for instance, *furniture* is non-count only, whereas French has the distinction between count *meuble/s* and non-count *mobilier* – yet, rather arbitrarily, this distinction is not available for crockery, for which there is no count counterpart to singular non-count *vaisselle*.

5.1.2   'Non-count' rather than 'mass'

The term 'non-count' will be preferred to 'mass' here because it is form-based (the criterion is whether the noun licenses a numeral), rather than meaning-based (denoting a mass, prototypically a substance, or some form of continuous construal). This has two advantages for the present study: the classification does not presume anything about the underlying construal; and it is symmetrical with 'count', whereas the 'count/mass' distinction relies on form for one value ('count') and meaning for the other ('mass').

This does not mean to say that the /count/ and /non-count/ features are meaningless; they do contribute a construal, well summed up by Huddleston and Pullum (2002: 335). A count noun "denotes a class of individuated entities of the same kind", or at least construed as such. The class *bird*, for instance, includes robins, eagles and so on, but *bird* retains only what is common to all the individuals. A non-count noun is one whose construal lacks at least one of these features, for various reasons. There may be no "entities", for example if the noun denotes a substance (e.g. *water*). Or there may be a complex whole, whose parts are not individuated; examples are *scissors* or *trousers*, which denote bipartite objects. These are plural non-count nouns; Acquaviva (2004: 392) notes that "one would hesitate to call them mass terms" because they do not refer to an actual mass. Unlike masses or substances, they do not divide arbitrarily: while any part of water is water, any part of scissors (e.g. a blade) is not scissors. In the case of *furniture* nouns, the nouns

are non-count because the individuated entities are not construed as being "of the same kind": the units only share the same *function* (furniture is used to furnish a room; otherwise, the room is *bare*) (Wierzbicka 1988: 513; Huddleston & Pullum 2002: 335). For instance, "to subsume spoons, knives and forks under one heading (*cutlery*) does not mean to think of them as one kind of thing; it means to think of them as of things of different kinds which can be used jointly for a similar purpose" (Wierzbicka 1988: 513). To Kleiber (1990: 87), the non-count feature also results from the homogenisation at work in this partial neutralisation of individual differences and foregrounding of a common function. In that respect, these nouns are not "fake" mass nouns. Like *scissors* or *trousers*, the pluralities denoted by *furniture* nouns do not license arbitrary divisibility: furniture chopped to pieces would hardly qualify as 'furniture'; at best, the plurality of pieces is 'broken furniture'. Wierzbicka (1988: 512) concludes: "What all non-count nouns share is not arbitrary divisibility, but the fact that the entities cannot be counted." The term 'non-count' therefore appears particularly appropriate, even from a semantic point of view.

The term 'mass', in comparison, does not seem as suitable, at least in its common sense, illustrated by Whorf (1962, cited by Wierzbicka 1988: 506): "Mass nouns denote homogeneous continua without implied boundaries." Accordingly, Murphy (2010: 152) distinguishes between "non-count nouns" for *furniture* or *guts*, and "mass nouns" for *rice* or *mud*, which denote "mass[es] of homogeneous matter". This, however, will not be retained here because it is more important, for the present study, to reflect the fact that there are only two broad forms of grammatical behaviour: /count/ and /non-count/.

An alternative choice is made by Langacker (2008: 132). He proposes to retain the term "mass" (and more generally, a "count"/"mass" distinction) and extend its field of application, emphasising the notion of homogeneity. To him, the profile of a mass noun is a profile that is not construed as "bounded within the immediate scope in the domain of instantiation"; a mass is "construed as internally homogeneous" (Langacker 2008: 140 – for detail on his inclusion of *N-s* among mass nouns, see § 4.1.1). For *furniture* nouns, he proposes that conceptualisers "apprehend an abstract commonality that renders [the entities] equivalent from a functional standpoint". This homogenisation is indeed at work, but the notion "internally *homogeneous*" does not seem the most suitable: there seems to be an expected plurality of kinds. Hirtle (2009), following Culioli (1990), opts for the alternative term "continuous" to reflect the partial homogenisation while not relating it to truly homogeneous substances ("mass"); this is probably a more appropriate term, with the symmetric term "discontinuous" (or "discrete") for count nouns.

Here I retain commonly used labels ('count'/'non-count'), which presume nothing about construal and offer stronger tests for classification decisions, though the 'continuous/discontinuous' pair would be suitable as well.

5.1.3   Non-count nouns as carrying number:
'lexical' vs. 'morphosyntactic' number

The title of this chapter indicates a focus on "singular" non-count nouns; this implies that non-count nouns have number. Such a stance deserves further elaboration, as the idea is rejected by a number of studies, especially in generative frameworks, on the basis that there is no number alternation. For example, Sportiche, Koopman and Stabler (2014: 201) note: "different D[eterminer]s often require that the N has a certain number (singular or plural), or no number at all (i.e. mass nouns)."

A restriction of number to number alternation is too narrow here. First, a language is said to have a number system when the agreement targets of a noun agree in number with the noun (or the NP) (Corbett 2000: 3); this is the case not only for nouns that may be alternately singular or plural (count nouns), but also for nouns such as *furniture*, which impose singular agreement on their targets, as well as for plural-only nouns (e.g. *funds*, *belongings*), which impose plural agreement. Secondly, the lack of number alternation is very different from the type of case termed "general number" in several world languages (Corbett 2000); there seems to be little reason for considering that *furniture* nouns stand outside the number system in English. Thirdly, if *furniture* (or *honesty*) is not said to be singular in form, then how can the difference with plural-only nouns (e.g. *foundations*, *scissors*, *belongings*) be captured – don't they differ precisely in number, even though they do not show number *alternation*? These nouns are not mentioned in the works consulted. Fourthly, Chapter 6 shows that some plural-only nouns are reanalysed as singulars by some speakers (whether count, e.g. *data/s*, or non-count, e.g. *memorabilia*); if non-count nouns do not have number, how can this be described at all?

A final argument is that the plural has been shown to have the same core meaning when it is a syntactic feature (morphosyntactic plural added to count nouns) and when it is a lexical part of the noun. Acquaviva (2008: 55) regards the two types as "closely related but distinct reflexes of one core phenomenon, which is the use of a grammatical category (number) to encode part-structural properties of a specific lexical item." Wierzbicka (1988: 302) describes these two uses as follows: "A plural opposed to a singular indicates a multiplicity of *things*. A plural not opposed to a singular indicates a multiplicity of 'thing-like' [i.e. separate or semi-separate] parts." (Chapter 6 will explore these differences further). I follow Acquaviva (2008) in treating plural-only nouns as "lexical plurals": the plural feature is part of the lexical content of the noun; this does not mean that these nouns are not also grammatically plural, imposing a plural /number/ feature in syntax. Following the same logic, nouns such as *furniture* will be considered as "lexical singulars", or singular-only nouns. In other words, as proposed by Corbett (2000: 3),

it will simply be considered here that *honesty*, for instance, does not "mark plural", that is, that for non-count nouns, number is not a value that is freely ascribed in discourse; there is no number alternation. But there is number.

An alternative view is proposed by Langacker (1991, 2008), who regards *furniture* nouns as "non-plural" rather than "singular". This choice is due to his innovative approach to count nouns in the plural (N-s), which are regarded as "mass nouns" (see § 4.1.1). Langacker (2008: 130) establishes the following categories of nominal uses:

– "singular count nouns" (for discrete entities), e.g. *table*
– '"mass nouns", which may be of two subtypes:
    – "plural mass nouns" (for replicate masses), that is, N-s, e.g. *tables* – to Langacker, count nouns in the plurals denote different categories than singular count nouns (§ 4.1.1);
    – "non-plural mass nouns" (for non-replicate masses), e.g. *furniture*.

Langacker (2008: 132) points out that nouns such as *oats* or *cattle* do not "fit comfortably in the classificatory scheme": they are not "a plural in form (there is no corresponding singular)", yet they "behave like one grammatically" (e.g. *those cattle*). He does not give any specific name to these nouns, though.

Although this conception probably has very useful applications elsewhere, its treatment of non-count nouns seems to be partly at odds with the way the number system actually works, and so will not be retained here. First, it is surprising that nouns such as *oats* or *cattle* should not be regarded as plural nouns although they "behave like [plural nouns] grammatically". This is obviously due to a conception of number as number *alternation*, but it runs counter to the fact that like *tables*, these nouns impose plural agreement on their targets; as such, they are number controllers, like any noun in the system. Denying them number would mean that they stand outside the number system, which is not consistent with cross-linguistic typologies (Corbett 2000): in languages which do not have number for at least some of their nouns, the lack of number means that there is no information about quantity (e.g. *I saw [dog]*, whether one dog or more than one). English is different: *cattle*, *oats* involve some form of plurality, at least of parts.

A possible solution is offered by Alexiadou's (2011: 37) adjustment of the Minimalist framework, which proposes two types of plural: a "so-called grammatical plural", which attaches to a word, and so is on the Number head, and a "so-called lexical plural", which is involved in the word formation process itself, and is on 'n' (it is a categorizing head). This yields the following, for Greek examples:

(2) A split analysis of number according to Alexiadou (2011: 37)

    a. Vivilia 'books' (morphosyntactic plural)

```
            Number
           /      \
         Pl         n
```
    Semantics: [Pl (book)]
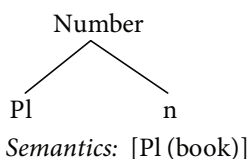
    b. Nera 'water-pl' (lexical plural)

```
            n
          /   \
        Pl      √
```
    Semantics: [water & Pl]
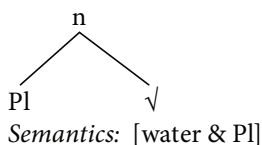
This would need further refinement, though, through future research in that specific framework: the description needs to accommodate nouns such as *barracks*, which may be syntactically singular or plural although they carry an *-s* morpheme, reflecting construal of the referent as non-simplex.

Another reason why *furniture* will be regarded as carrying number is that, as will be seen later in this chapter and the next, the singular number makes its own contribution to the construal, just as the plural does in words such as *belongings; furniture* is thus not just deprived of plural form ("non-plural"), but has a positive singular number.

The position taken here is therefore that *furniture* is a singular noun, and *belongings* a plural noun. Such nouns do not license number alternation; their number is imposed, because it is part of their lexical contents. Still, their targets agree in number with them, so that like the nouns that license number alternation, they are number controllers. This follows for instance Biber et al. (1999: 244), who regard *clothes* or *trousers* as "plural uncountables", that is, "morphologically plural nouns which do not vary for number and do not combine with numerals".

Now that terminological choices have been made explicit, let's turn to the debate over whether *furniture* nouns (that is, singular non-count nouns that denote pluralities of heterogeneous entities) are collective – as noted at the beginning of the chapter, they are the focus of existing studies. Section 5.2 first reviews the existing arguments, showing why they are inconclusive. Section 5.3 then proposes further considerations, addressing these nouns against the background of all the ways of denoting pluralities of units.

5.2   The terms of the debate: Construal differences between *furniture* nouns and count collective nouns

5.2.1   Introduction: Historical perspective

Divergences over the classification of *furniture* nouns as "collective" are by no means recent, and partly depend on the type of publication considered.

Among grammars, 19th-century American grammars explicitly exclude them, such as Quackenbos (1869) (extract (3)) or Kerl (1867: 124–125, extract (4)), on the grounds that they do not license hybrid agreement. In England, the same rule of singular/plural agreement is given to define collective nouns, so the position is probably similar; but *furniture* nouns are typically not mentioned (e.g. Latham 1850: § 480, or the various adaptations of Murray's grammar, such as Davis 1830: 148).

> (3)   A *Collective Noun* is the name of a body of individual living objects; as, nation, mob, society, jury, herd, swarm. 52. The name of a collection of objects without life is not a *collective noun*. Pile, heap, mass, perfumery, *furniture*, stationery, &c, are simply *common* and not *collective* nouns.   (Quackenbos 1869: 30)

> (4)   A collective noun is a noun denoting, in the singular form, more than one object of the same kind. […] But a noun in the singular number, that denotes a collection of things resembling in their general character, but differing in their particular character, is not a collective noun. Example – Furniture, jewelry, machinery, finery, baggage, clothing.   (Kerl 1867: 124–125)

This is still the view today in the major reference grammars, such as Biber et al. (1999: 247); American Heritage (1996) in (5) for the US; or for Britain, Quirk, Greenbaum, Leech and Svartvik (1985: 316) or Huddleston & Pullum (for whom *furniture* denotes "a heterogeneous aggregate of parts", 2002: 336). Greenbaum (1996: 456), though, includes them.

> (5)   In American usage, a collective noun takes a singular verb when it refers to the collection considered as a whole […]. It takes a plural verb when it refers to the members of the group considered as individuals. […] Collective nouns always refer to living creatures. Similar inanimate nouns, such as *furniture* and *luggage*, differ in that they cannot be counted individually. That is why you cannot buy *a furniture* or *a luggage*. These nouns are usually called *mass nouns* or *noncount nouns*. They always take a singular verb: *The bedroom furniture was on sale*.   (American Heritage 1996: 11)

Outside grammars, however, a number of linguistic studies, taking a semantic view (/plurality of units/), include *furniture* nouns among their examples of collective

nouns. This is the case, for example, in Lyons (1977: 316), Aaron (2001: 181, extract (6)), or as far back as 1874, of Bain in a study of classical suffixes (extract (7)).

(6) *Collective nouns* such as *team* take singular or plural verbs depending on meaning. […] Some noncount nouns (nouns that don't form plurals) are *collective nouns* because they name groups: for instance, *furniture*, *clothing*, *mail*.

(Aaron 2001: 181)

(7) *Ure*, (sure, ture), uniting with the supine, formed verbal abstract nouns. It is now used frequently to convert verbs into nouns expressing the verb action. *Capture*, *censure*, *culture* […]. Abstracts often become class nouns: *adventure*, *aperture*, *caricature*, *creature*, *feature*, *picture*, *venture*. *Furniture*, *garniture*, *vesture*, are collective. (Bain 1874: 270)

Interestingly, while Bain includes *furniture* in his *Companion to the Higher English Grammar* ((7) above), in the grammar itself, he does not mention *furniture* nouns and considers licensing of plural agreement a requirement for "collective nouns" (Bain 1872: 14). This may reflect uneasiness with the mainstream theory, which ignores *furniture* nouns whereas they denote pluralities of units.

As for present-day books of usage and dictionaries, positions vary. *Webster's Dictionary of English Usage* (1989) (extract (8) below), following Davidson (1985) (referred to as "Chambers 1985" in (8)), explicitly regards *furniture* nouns as collective. British books of usage, on the other hand, tend to exclude them (e.g. Butterfield 2013: 38). For dictionaries, the OED (2018) does not use "collective(ly)" for *furniture*, but defines *crockery* as "crocks or earthen vessels collectively".[2] This may be because different lexicographers have conceived the definitions.

(8) Chambers 1985 points out that one class of collective nouns – those like *baggage*, *cutlery*, *dinnerware* that stand for a collection of inanimate objects – can be omitted from consideration [of subject-verb agreement]; they are regularly singular. (Merriam-Webster 1989: 257)

Although *furniture* nouns have long posed classification problems, oddly enough, these problems do not seem to have been addressed specifically until the turn of the 21st century. There, the classification issue has been approached through a comparison with only one other subset of nouns at a time: other singular non-count nouns (e.g. Barner & Snedeker 2005; Hacker 2010; Joosten 2010; Smith 2015), count collective nouns (Joosten 2010; Lammert 2010; Gardelle 2014, 2017), or N-s (e.g. Wierzbicka 1988; Grimm & Levin 2011a, b). Each of these studies has concluded

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2. Neither the Merriam-Webster online dictionary (Merriam-Webster 2018) nor the *Oxford English Dictionary Online* (2018) use the term "collective" or "collectively", but they do not do so for *committee* or *jury* either – probably because they choose simple defining words.

to a specificity of *furniture* nouns compared with the other subset of nouns considered. The next subsections review these construal differences, but show that such comparisons, because they are partial, are rather inconclusive, in that they do not classify the nouns positively.

5.2.2 Construal differences between *furniture* nouns and other singular non-count nouns

The idea that *furniture* nouns may be collective stems from the strong semantic similarities they share with count collective nouns in the plural (N-s), which make them closer to these than to prototypical non-count singular nouns (that is, nouns that denote substances, such as *water*).

First, *furniture* nouns typically denote pluralities of units. *I bought some furniture* is unlikely to be said if all that was bought was one chair, or one sideboard. *Water*, on the other hand, denotes one continuous substance (although it is made up of molecules, the human eye cannot see them). *Furniture* may apply to a single item when used predicatively in a definitional sentence (e.g. *a chair is furniture*), but Murphy (2004: 226) shows that plural reference is easier to process. When a picture of a couch on its own is presented to informants, it is identified as "a couch" much faster than as "furniture"; but when the couch is shown within a living-room scene, it is categorised equally fast as "furniture" and as "a couch". He concludes that presenting objects in groups aids superordinate classification. Moreover, real-life production of these definitional sentences is extremely rare: a search on Google Books (June 2018) only returns two occurrences of "was furniture", in the negative form, in judicial contexts, as in (9) – whereas there are more results with the plural "*were* (not) furniture".

(9)   If, however, it had been necessary for him to convince a jury that the <u>bed</u> which he was carrying away was not <u>furniture</u> 'in a popular sense' because it was not movable, he would, I think, have had short shrift.

(*The Law Journal Reports*, 1943, Google Books)

Because *furniture* nouns denote pluralities of units, they do not license arbitrary divisibility, as was noted in 5.1.2 above. This is another difference with substance nouns: any part of water is water (at least to the human eye). For this reason, Hacker (2010) concludes that they are only "pseudo-mass nouns". Moreover, because the plurality is made up of units, *furniture* nouns pattern with count nouns, rather than non-count ones, in comparison experiments. Barner and Snedeker (2005) find that three small pieces of furniture are consistently regarded as "more" than one large piece, whereas one big heap of mud is considered as "more" than three small heaps.

In other words, with *furniture*, quantity judgments are computed in terms of individuals rather than volume – at least in out-of-context experiments (see Grimm & Levin 2011a, b's suggestion of an additional functional parameter, § 5.2.4 below). Barner and Snedeker (2005) conclude that *furniture* nouns are "object-mass nouns", as opposed to "substance-mass nouns" such as *water*. Similarly, Smith (2015: 10) shows that *he has more furniture than me* compares the number of pieces, like *he has more books than me*, whereas *he has more water than me* compares volumes. He concludes that *furniture* nouns are "fake mass nouns".

Finally, Lyons (1977: 316) notes that *furniture* is very similar to count collective *clergy* in having a set of quasi-hyponyms: *priests, bishops and other members of the clergy* is very similar to *tables, chairs and other kinds/items of furniture*.[3]

In sum, what if the /count/ feature were not a defining feature of the class of collective nouns: is the construal sufficiently similar to that of count collective nouns to qualify *furniture* as "collective"? This seems a natural conclusion to draw from Kerl (1867: 124–125) in (4) above, when he describes *furniture* as a noun "that denotes a collection of things". The answer is more complex, however: the similarities are only partial. This is what § 5.2.3 addresses.

5.2.3 Construal differences between *furniture* nouns and count collective nouns

Because count collective nouns and *furniture* nouns differ by their /count/ vs. /non-count/ feature, a first difference is that the former denote bounded wholes at lexical level, whereas *furniture* nouns do not imply boundedness. This latter characteristic is shared with N-s, as seen in Chapter 4. In context, an NP headed by *furniture* might denote a bounded whole (e.g. *the furniture in this room*), again like N-s (e.g. *my parents*), but this is contextual boundedness only. Consequently, *furniture* nouns, like N-s, do not have non-additive properties: it is impossible to ascribe a property such as size, shape or age that applies to the whole and not to the units. *Z-shaped furniture*, for instance, has to mean Z-shaped items; it may not refer to the shape drawn as a result of the arrangement of the furniture in the room. Due to the lack of inherent boundedness, tests (a) and (b) used earlier in the volume (see for instance § 3.1.4.2) are impossible at generic level: (a) *Furniture is composed of chairs, tables, etc. / (b) *A chair is part of furniture. For test (a), a more felicitous string would be *consists of*, but *consist of* is applicable to any componentially complex entity, not just collective wholes: *A Haiku consists*

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3. As noted by Lyons (1977), not all count collective nouns are hyperonymic (e.g. *herd*, *forest* are not); this is not a defining feature of the class.

of 3 lines and 17 syllables / A drone consists of an airframe, a propulsion system, an autopilot, […] (Google search among .co.uk domains, 2019). Tests (a) and (b) are felicitous at specific level, though, once the referent is contextually bounded (*Our living-room furniture is composed of one table, etc. / This chair is part of our living-room furniture*), because there is a shift from a class (*furniture*: tables and chairs *are* furniture) to a set of elements (*our living-room furniture*). This shows more integration of the units than with N-s (*Our company vehicles are composed of SUVs, microcars and trucks).

Joosten (2010) further considers that from a formal point of view, the /count/ vs. /non-count/ difference should be grounds for rejecting the collective status of *furniture* nouns: following Bache (2002), he argues for metalinguistic categories that correlate form and meaning. This, however, will not be considered as a strong enough argument here: as pointed out by Lammert (2010: 191), there are many differences among count collective nouns anyway – different degrees of permeability, or non-count uses of *forest* or *family*.

Another difference put forward by Joosten (2010: 35) is that with *furniture* nouns, the entities are grouped according to criteria of similarity, whereas grouping with count collective nouns is based on contiguity. In other words, *furniture* nouns license a *BE* relation with the units (*chairs are furniture*), whereas *archipelago*, for instance, groups together islands on the basis of external factors (the islands stand close together); the islands *are not an archipelago. Lammert (2010: 190), however, rightly points out that this *BE* relation is of a type that is different from typical, taxonomic, hyperonymies, such as *vehicle:car*. With *furniture*, there is an expected plurality of kinds, and an expected plurality of units. She proposes to view *furniture* nouns and count collective nouns as two different subclasses of the class of collective nouns. Similarly, Wierzbicka (1988) concludes that nouns such as *furniture* denote "collective supercategories".

A final difference lies in the reason why these nouns exist at all. Count collective nouns (e.g. *archipelago*) foreground the set formed by the units, the new resulting entity, whereas *furniture* nouns background the differences between the units in order to highlight a similar function (Joosten 2010: 43). For instance, *furniture* is whatever is used to furnish a place; *earthenware* foregrounds the common material, as well as a similar use (container). But Grimm and Levin (2011a) reach a very different conclusion from this fact: to them, *furniture* nouns are "functional collectives". Similarly, Lammert (2010: 193) chooses to consider that the two types of nouns just belong to different subclasses of the set of collective nouns, because *furniture* nouns share a number of similarities with count collective nouns which make them closer to these than to N-s.

5.2.4 Construal differences between *furniture* nouns and N-s

While N-s, which take the unit noun as a starting point, allow full access to the units (see Chapter 4), *furniture* nouns, like count collective nouns, show more integration. For instance, while *the jewels are different* may compare the items within a set, *the furniture is different* has to compare the items with those in another set (for instance, this sentence could be close to 'the furniture in the room has been replaced'). Similarly, *jewels*, but not *jewelry*, allows for an anaphoric expression with a possessive determiner and a noun that denotes a part of a unit: *jewels and their mountings*, ??*jewelry and its mountings* (Gardelle 2018b; Lammert 2014: 94 has the same conclusion about French). This is because a mounting has a unit (a part of the plurality), and not the plurality, as its functional domain; similarly, *the handles on the doors of the house* may not yield *'the handles of the house' because the functional domain for a handle is a door, not a house (Cruse 1986: 166). It can be concluded from this that N-s, such as *jewels*, give access to the parts of parts, and so have the units as the functional domain, whereas *furniture* nouns make the plurality (e.g. the jewelry, the furniture, as a whole) the functional domain (Gardelle 2018b). This makes *furniture* nouns closer to count collective nouns – see § 2.3.1.

Due to this different access to the units in the plurality, Grimm & Levin (2011a, b) show that collocational patterns differ for *furniture* nouns and their alleged 'equivalent' N-s. For example, an extraction of all the attributive adjectives used with *mail* and *letters* in the BNC shows that behaviour-related meanings are common with *letters* (21%, such as *malicious* or *poignant*, vs. less than 1% for *mail*), as are mood-denoting adjectives (such as *cheery* or *dreadful*, 10% vs. less than 1%), whereas adjectives that are related to delivery (e.g. *express*, *international*) are common only with *mail* (45%, vs. only 2% with *letters*). The authors conclude that with *letters*, adjectives often characterize the content of the letters, whereas with *mail*, what prevails is the event tied to the noun (the delivery). They reach the same conclusion for *furniture*. Similarly, in another experiment, they find that *more furniture* might be assessed not just in terms of number of items, but also in terms of the capacity to furnish (fill) the room. 65% of informants, asked the question in (10), chose Friend A although the room has fewer items:

(10) CONTEXT: You are visiting different friends.
Imagine upon entering Friend A's room, you see a sofa, an easy chair, a coffee table and a small bookcase. (4 items)
Imagine upon entering Friend B's room, you see one table and four chairs. (5 items)
Whose room has more furniture? (Grimm & Levin 2011b)

Furthermore, despite addivity, *furniture* nouns do not denote exactly the same reality as their 'equivalent' N-s, when a unit noun exists. At first sight, it may seem that the unit noun in the plural may always be substituted; Cherchia (1998: 68), for instance, writes: "What else can the denotation of *furniture* be, if not all the pieces of furniture (down to the single ones)?" But as noted by Gardelle (2018b), if the two were equivalent, then pairs such as *jewel/s / jewelry*, or *weapon/s / weaponry* should not co-exist. A closer look at uses in context shows that the denotation of the non-count noun tends to extend beyond 'more than one unit'. *Jewelry* may also denote an art, as in (11); it may denote realities that are too complex to qualify as "a jewel", such as a hip belt (which is therefore a "piece of jewellery" for Oakeshott 1996 [1960]: 289). Similarly, *clothing* may refer to the whole domain associated with clothes (fashions, ways of dressing, as in (12), where *clothes laws or *garment laws would be impossible); or *weaponry* may extend to the art of using weapons, or the business sector, so that *advances in weaponry* or *developments in weaponry* do not seem to license substitution by *in weapons (there are no occurrences on Google).

(11) <u>Jewellery</u> is one of the oldest of the decorative arts.

<div align="right">(1970, Google Books – from Gardelle 2018b)</div>

(12) <u>Clothing</u> laws in the 1440s forbade people to dress like those considered more important than them. For example, apprentices in England who worked for expert craftspeople, called masters, could not dress like the masters. Townswomen in Florence, Italy could not wear striped gowns or fabrics embroidered with gold and silver because they might be mistaken for noblewomen.

<div align="right">(2004, Google Books – from Gardelle 2018b)</div>

These differences in extension (and intension) explain why, for such pairs, the phrase 'N-s and [non-count noun]' is common, and in this order: *weapons and weaponry*, *gifts and giftware*, etc.: 'more generally' might be added before the non-count noun in the string (e.g. *gifts and more generally giftware*). For example, *gifts and giftware* may be glossed as 'gifts and more generally anything that may serve as a gift' (Gardelle 2018b).

Grimm and Levin (2011a: 11) further show that for some *furniture* nouns, functional similarities in context may be crucial for categorisation. For example, *mail* denotes "a set of entities which have in common that they travel together through the postal system". Magazines sent through the post, therefore, qualify as *mail*, whereas magazines in a shop do not. Because they denote artifacts, *furniture* nouns have a canonical associated event – furnishing a room (as opposed to a bare room) for *furniture*, transmittal through the postal system for *mail*, pulling or carrying through a journey for *luggage*, and so on (Grimm & Levin 2011a), hence the deverbal origin of many of them.

In sum, all these differences make the classification of *furniture* nouns rather inconclusive. For instance, Grimm and Levin (2011a), as mentioned above, conclude that they are "functional collectives"; but in (2011b), they opt for "functional aggregates". The claim made here is that the exact status of *furniture* nouns may only be determined if all the modes of construal of pluralities are taken into account. This is what is explored in § 5.3; they are found to be aggregate nouns.

5.3   *Furniture* nouns as superordinate aggregate nouns: non-taxonomic hyperonyms of plural classes

5.3.1   Superordinate aggregates

The review of construal differences in § 5.2 has shown that *furniture* nouns do not denote mere groupings, like N-s: the units are more integrated. Yet they differ from collective wholes in that the whole does not have non-additive properties of size, shape or age; in other words, there is not a clear double layer of conceptualisation. This is true even when the plurality is bounded in context (e.g. *this Z-shaped furniture*). The classification established so far in the present volume logically leads to the conclusion that these nouns denote aggregates – like uninflected plural uses of *crew* or *clergy* –, more precisely 'aggregates of entities that cannot be counted' (rather than 'aggregates of partially countable entities' for *crew/clergy*). Like *crew/clergy*, they denote the nature of the units (*chairs* ARE *furniture*, *this chair and that table* ARE *furniture*), and so denote a class as much as a plurality of units. Also like them, they may be N2-s in a binominal construction in which the N1 is a count collective noun (an instance of the 'organised plurality construction', e.g. *a set of furniture*).

Moreover, these aggregate nouns have superordinate status (e.g. Tversky 1990). This has several consequences for construal. First, it explains the expected diversity of kinds, which also holds for superordinate N-s: just as it is unlikely that *Mary drew some cutlery/furniture/crockery* would be said if she only drew spoons/chairs/cups (Wierzbicka 1988: 513), it is unlikely that *Mary drew some toys/vehicles* would be said if she only drew toy soldiers or cars. Not using basic-level terms requires contextual motivation – contextual relevance. Superordinate status also explains (at least partly) the functional basis for class membership: what the entities denoted by any superordinate nouns have in common are typically abstract, functional properties (e.g. Croft & Cruse 2004: 85; Murphy 2004: 227). This holds whether the nouns are count or not: the superordinate class *vehicle*, for instance, groups members around functional features such as "moves people and things around" (Ungerer & Schmid 2006: 83). Superordinate status may also partly explain the relationship between class and group in the construal: studies have shown that a number of

children find it difficult to acquire superordinate categories (e.g. *animal*, *toy*), and tend to consider that they have to denote a plurality. For instance, they might say that a group of animals together are "animals", but deny the status of "animal" for a single one (Markman, Horton & McLanahan 1980; see also, for instance, Markman 1985 or Murphy 2004: 226).

The confusion is facilitated by the proximity between hyponymy and meronymy. Hyponymy illustrates a *member:class* relation, meronymy a *member:group* relation – it is a subvariety of the *part:whole*, or even the broader *portion:whole*, relation (Croft & Cruse 2004: 151). Consequently, Cruse (1986: 179) notes that "any taxonomy can be thought of in part-whole terms (although the converse is not true): a class can be looked on as a whole whose parts are its sub-classes." As noted also by Joosten (2010: 31), if one adds *the category/class of*, a gloss in "part of" becomes possible for "kind of" relations: *the category/class of birds is part of the category/class of animals* – note the plural: *birds*, *animals*, reflecting the proximity between classes and pluralities. But what the next subsection is going to show is that the problem can be solved once one considers *non-taxonomic* hyperonymy.

5.3.2   Non-taxonomic hyperonyms

One recurring misconception in studies that use hyperonymy to study *furniture* nouns is to consider that hyperonymy has to be taxonomic (a 'kind of' relation). These studies conclude, with good reason, that *furniture* differs from nouns such as *vehicle* or *flower*. Chairs are not a kind of furniture, whereas a truck is a kind of vehicle, and a rose is a kind of flower; and as noted by Grimm and Levin (2011a), with *furniture*, the properties of the hyperonym are not automatically inherited by the hyponyms.

But Cruse (1986: 137) has shown that not all hyperonymic hierarchies are taxonomic: in *cat:kitten*, or *monarch:queen*, for instance, *kitten* and *queen* are hyponyms, but not taxonyms: ?*a kitten is a kind/type of cat*, ?*a queen is a kind/type of monarch*.[4] What matters in hyponymy is class inclusion: hyponymy is defined as "the lexical relation corresponding to the inclusion of one class in another" (Cruse 1986: 88). For instance, *kitten* is a subset of the class *cat*. Moreover, property inheritance is only a characteristic of prototypical hyponymy: there may also be "para-relations", "para-hyponymy", in pairs such as *pet:dog*. A dog may be a pet, but does not have to be (Cruse 1986: 99). The role of the context is important in this case: a dog is only expected by default to be a pet. Conversely, if the context is right, the string

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4.   To Cruse (1986: 97), *knife*, *fork* or *spoon* are 'taxonyms' of *cutlery*. The *kind of* gloss, though, is not satisfactory.

handbags and other weapons is acceptable although a handbag is not conventionally expected to be a weapon (Croft & Cruse 2004: 144). This notion of para-relation is particularly important for a number of *furniture* nouns, such as *mail*: as noted by Grimm & Levin (2011a, b) (see § 5.2.4 above), magazines sent through the post will qualify as *mail* (there is a para-relation *mail:magazines*), but magazines in shops are not mail. In other words, *furniture* nouns are superordinate hyperonyms, but not prototypical ones: they are non-taxonomic, and possibly para-hyperonyms.

More specifically, a noun such as *furniture* is described by Cruse (1986) as a "quasi-hyperonym" of *chair*, because the two nouns do not have the same syntactic feature (/non-count/ vs. /count/). Cruse (1986: 97) defines quasi-relations as follows: "It not infrequently happens that an exactly appropriate lexical partner that would complete a paradigmatic relationship is missing, but a lexical item exists, with virtually the required meaning, but of the wrong syntactic category. In such cases we say there is a quasi-relationship. […] [W]e shall say that *knife*, *fork* and *spoon* are quasi-hyponyms of *cutlery*, and *cutlery* is a quasi-superordinate."

In sum, *furniture* nouns are superordinate hyperonyms, or at least quasi-hyperonyms and para-hyperonyms; they are non-taxonomic, so that property inheritance is not guaranteed, because the grouping is effected on a functional basis. The meronymy effect ('part of' impression) is only achieved in specific contexts, when the plurality of entities is contextually bounded; this is a consequence of the proximity between classes (in extension: categories of members) and groups, considered further in § 5.3.3 below.

Considering that *furniture* nouns are non-taxonomic hyperonyms leaves two questions to be addressed:

– first, why is a singular phrase in BE not as felicitous as with count nouns? *A chair is furniture* is not as spontaneous as *a dog is an animal*, or *a dog is a pet*; rather, *a chair is an item of furniture*. And conversely, while *an animal may be a dog or a cat or…*, **furniture may be / includes a chair or a table or…* is impossible: rather, *furniture is / includes chairs and tables and…*.
– secondly, if *furniture* nouns are hyperonyms, why does Joosten (2010) find a 'part of' as well as a 'kind of' relation to the unit nouns?

The answer to both questions, it is argued here, is that *furniture* nouns are hyperonyms of plural classes.

5.3.3   The 'hyperonym of plural classes' hypothesis

The 'hyperonym of plural classes' hypothesis, put forward in Gardelle (2017), proposes that the lexical hierarchy for *furniture*, for example, is (a) below, not (b) – the hyperonyms of singular *chair* would rather be *item/piece/stick of furniture*.[5]

(13)   Representations of hierarchical relations for *furniture*.   (Gardelle 2017: 161)

    a.   furniture   NOT   b.   furniture

       chairs tables sideboards …   chair table sideboard   …
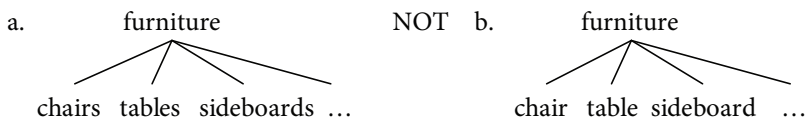
The description proposed for *furniture* nouns makes them different from count superordinates, such as *vehicle*, for which the hierarchy may be represented as followed:

(14)   Tentative representation of hierarchical relations for count superordinates.
                                           (Gardelle 2017: 166)

           vehicle   (availability of *-s*)

     car truck bus … (availability of *-s*)
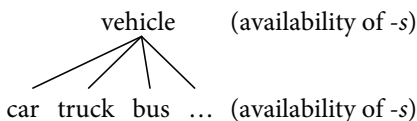
Such a description of hierarchical relations with *furniture* implies that, as suggested by Langacker (1988, see § 4.1.1), the plural is not just a discourse feature for count nouns, but may be pivotal to lexical categories as well. At first, this could seem to run counter to the traditional format of dictionary entries as lemmas (lexical bases) which, for count nouns, are similar to the singular form. But such a representation of the lexicon may well be a simplification compared with what actually goes on in the brain. Plural hierarchies are very common in our everyday life, as exemplified by various forms of typologies, such as:

–   sales categories on all sorts of shopping websites: for instance, the heading *Accessories* on the Debenham's website (accessed in January 2016) has the following hyponyms: *hats*, *gloves*, *scarves* and *bags*.[6] Moreover, for highly superordinate nouns such as *accessory* (or *toiletry*), or nouns that denote units that

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5.   This is reflected, for instance, in the following extract from Taylor (2003: 24): "A given entity may be categorized in many alternative ways. *Chair*, _piece of furniture_, *artefact*, and indeed, *entity*, are all equally true of naming the thing I am sitting on as I write this chapter."

6.   The potential hyponyms of *accessories* form an open-ended list, as what matters is function ("an accompaniment", OED 2018). The hyponyms will therefore vary depending on what the core

are often found together (e.g. *glove*), plural use is more common than the singular in the language in general. A COCA search (2018) yields the following results: *accessory* 986 hits vs. *accessories* 3,823; *glove* 5,104 vs. *gloves* 9,172; as opposed to *hat* 21,211 vs. *hats* 5,975.

– collectibles price guides (e.g. Maloney 2003; Bradley 2015): for example, the table of contents of Bradley's *Antiques & Collectibles 2016 Price Guide* (2015) includes: *boxes, ceramics, Christmas collectibles* […], *furniture* and so on.

– taxonomic codes: for instance, here is an extract from the categories in Doggett, O'Farrell and Watson (1980):

(15)   (Doggett, O'Farrell & Watson 1980 : 131 – from Gardelle 2016b: 357)

```
                      Market End-Use:
"FINISHED MATERIAL":  ● CONSUMER & INSTITUTIONAL PRODUCTS
COPPER
                                      ———— 097 - Metal Stampings
084 - COPPER ————                     ———— 098 - Cutlery, Hand Tools,
                                                 Hardware
                                      ———— 147 - Jewelry and Silverware
                                      ———— 148 - Toys, Sport, Musical
                                                 Instruments
                                      ———— 150 - Misc. Manufacturing, NEC

                      ● HOUSEHOLD DURABLES

                                      ———— 116 - Service Industry Machinery
                                      ———— 123 - Household Appliances
```

Everyday language reflects this: phrases such as "the class of determiner_s_/nutrient_s_/…" are common. Ad hoc categories, too, have been described with plurals: for instance, Cruse (1986: 148) mentions the category of "movable item_s_ one buys when moving into a new house: furniture (chair_s_, table_s_, bed_s_, etc.), appliance_s_ (refrigerator, television, washing-machine, etc.), carpet_s_, curtain_s_, etc.".

From a more theoretical point of view, considering that there are plural hierarchies does not run against the existing literature on lexical categories (Gardelle 2017: 161). Cognitive linguists, in particular, seem to name categories using singulars or plurals with seemingly little theoretical difference, as in the following sample of extracts (from Gardelle 2017, emphasis added):

(16)   one characteristic of real-world, or natural, categories, is that they are hierarchical – some categories contain other categories. For example, the category *furniture* contains *chairs*, and the category *chairs* contains *living-room chairs*.
(Reed 2012: 184)

(17)   Many words for superordinate categories do not belong to the simple one-syllable type which is dominant among basic-level terms; this is true of FURNITURE, VEHICLES, MUSICAL INSTRUMENTS, for instance. [While earlier on the page, also about superordinates, the authors mention the category TOY].
(Ungerer & Schmid 2006: 179)

---

items are considered to be in the context. As suggested later in this section with ad hoc categories, hyperonymy does not have to involve clearly established, fixed, lists of hyponyms.

(18)   [about the substance-object relation, one type of relation between the super-
ordinate and basic levels of taxonomy:]   (Radden & Dirven 2007: 70)

substance
furniture

table(s)   chair(s)   bed(s)

object
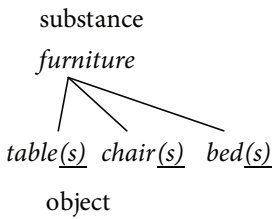
[…] Apart from *furniture*, this group includes the superordinate terms *cutlery*
(BrE) or *silverware* (AmE) (and basic-level terms such as *knives, forks and
spoons*), *money* (*dollar, dime* and *cent*), *jewellery* (*ring_, bracelet_* and *necklace_*)
and some others.

As noted in Gardelle (2017), regarding *furniture* nouns as superordinates of plural
categories (that is, *chairs, tables* and so on) answers the questions asked at the end
of the previous subsection, and appears to be the only hypothesis that does:

–   the reason why *furniture* nouns are not used as defining terms in dictionary
definitions is that they are unsuitable as hyperonyms of singular nouns; for
example, the OED (2018) uses *appliance* as a defining term for *refrigerator*, or
seat for *chair*. Gardelle (2017: 162) notes that *furniture* is used in the definition
of *table*, but in the string *item of furniture*, which confirms the hypothesis. For
the same reason, *a chair is furniture* does not seem as fully spontaneous as,
for instance, *a refrigerator is an appliance* or *a dog is a pet*. The hypothesis also
allows for *furniture* nouns to be used of a single item (e.g. *a chair is furniture*, or
Here's your mail when all there is a single magazine): as *chairs* is a hyponym of
furniture, the category of chairs inherits the properties of *furniture*. Therefore,
a single member of the category (*a chair*) will also inherit these properties. The
fact that the superordinate is non-count is directly relevant to this conceptual
adjustment: the /non-count/ feature backgrounds the individual boundaries of
the units (see § 5.4.1 below).
–   as for the impression of a 'part of' relation suggested by Joosten (2010), it is
only a side effect of the proposed hierarchy. This so-called 'part of' relation is
of a very different kind from the 'part of' relation at work in count collective
nouns: a HAVE relation is impossible. While *an archipelago has islands*, *furniture*
does not *have tables and chairs and … (*consists of* would be felicitous, but as
objected in 5.2.3 above, it is too broad, being applicable to any componentially
complex entity). Rather, the impression of a 'part of' relation stems from the
fact that the classes are plural; *chairs are part of* (/*members of*) *the class of furni-
ture*, just as for taxonymic hyperonyms, it is possible to say that *birds are part of*

(or *members of*) *the class of animals. Birds* is not a meronym of *animals*: while the islands are the *constituent* components of an archipelago, birds are only *examples* of animals, and similarly, chairs are only *examples* of furniture. As noted by Gardelle (2017), this analysis strengthens Joosten's (2010) argument for a fundamental difference in conceptualisation between collective nouns (contiguity) and *furniture* nouns (similarity). The major difference with count superordinates (e.g. *vehicle/s*) is that with *furniture* nouns, the units are no longer the reference level; the nouns denote aggregates rather than groupings of fully differentiable entities.

5.3.4   A typology of nouns that denote aggregates of heterogeneous entities

5.3.4.1   *Tentative list*

The test for heterogeneity is whether the nouns license the test *X and other Ys* for hyperonymy: *wedding bangles and other jewelry, house plants and other greenery*, etc. The list obtained is the following:

– *ammunition*, *bedlinen*, *change*, *equipment*, *gear* (in the sense 'equipment', as in *ski gear*), *furniture*, *mail*, *paperwork*, *stuff* (in the sense 'belongings', as in *my stuff*), *vegetation*
– *-age: baggage/luggage, signage, toolage*
– some nouns in *-ia* (a plural ending reanalysed by some speakers as singular – see Chapter 6): *automobilia, paraphernalia*
– some nouns in *-ica* (similar case of reanalysis): *photographica*
– *-ing: bedding, clothing*
– *-ware: chinaware, cookware, dinnerware, earthenware, flatware, giftware, graniteware, hardware, hollow-ware, kitchenware, silverware, spongeware, spatterware, tableware, picnicware, …*
– *-wear: beachwear, knitwear, footwear, nightwear, occasionwear, shapewear, swimwear, underwear, workwear, …*
– *-(e)ry: crockery, cutlery, gadgetry, greenery, jewel(le)ry, machinery, pottery, weaponry, stationery + lingerie*

Among these, the morphology may reflect varying degrees of intrinsic heterogeneity. Deverbal nouns (e.g. *furniture*, from *furnish*; similarly *cookware; equipment*) have a 'whatever' reading: for instance, furniture is anything that is used to furnish a place. In comparison, denominal nouns (e.g. *jewelry, signage*) indicate the general nature of the entity through their stem (*jewel, sign*); they may apply to different kinds of elements, but do not have such a broad reading.

5.3.4.2   *A note on number variation: Reanalyses*

Most of the nouns above are stable in number: they are non-count singular. But at least three of them are made into lexical plurals by some speakers (excluding the specific case of outer circle varieties of English mentioned earlier), with the addition of a final *-s*. This does not make them count nouns, but rather non-count plurals, common with determiners such as *these*, but apparently impossible with numerals (judgment based on a Google Books search, 2018). This shift yields *kitchenwares* and *woodenwares*, quite common on Google Books although the OED (2018) only mentions the singular (Gardelle 2016b: 358), as well as *gadgetries*.

Two other nouns have undergone reanalysis. *Equipment* has been reanalysed by some as a count noun, yielding phrases such as *forty electric equipments* (1958, Google Books, from Gardelle 2016b: 358). *Furniture* (in the main sense it has to-day: chairs, tables and so on) was occasionally used as a plural in the 18th century, as in *The furniture were all in their places* (1797), but the singular is stable today (OED 2018).

Further considerations on the role of number in the construal of pluralities with non-count nouns will be made in §§ 6.1 and 6.3.

5.4   Extension to other non-count nouns that denote pluralities of entities

As stated in the introduction to this chapter, the focus on *furniture* nouns has led to a dearth of research on other non-count nouns that denote pluralities of entities. They are of three kinds: nouns that denote pluralities of objects of the same kind (e.g. *foliage*); nouns that denote pluralities of animals (e.g. *livestock*); and a few nouns that denote pluralities of humans (e.g. *management*). They are examined in this order.

5.4.1   Other inanimates: Pluralities of homogeneous entities

This category of nominal meaning contains very few nouns:

–   a handful of denominal nouns in *-age*, such as *sailage* and *toolage* or the only two relatively frequent nouns, *foliage* and *plumage*. *Foliage* is a borrowing from French, itself derived from French *feuille* 'leaf'. Although the deriving noun does not exist in English, the linguistic link to the unit noun may be said to be tenuously alive, as *fol-* is used as a base for a number of words (e.g. *foliaceous*, *folio*). As for *plumage*, also borrowed from French, the word *plume* exists, al-though with a more restricted sense than French *plume* 'feather'.

It should be added that the *-age* suffix does not always contribute a /plurality/ feature: when added to nouns, it may denote anything functionally related to that noun – a place (*orphanage*), a tax or duty (*housage*, *pewage*), a title (*peerage*), and so on. 'More than one entity' is only one of its possible sense effects. Finally, *foliage* has a secondary sense, perhaps too rare yet to be recorded in dictionaries, in which it is hyperonymic (Gardelle 2018b): Google Books has examples of *trees and other foliage* (2012) or *the grass and other foliage* (2015). In this sense, exactly like *jewelry*, it denotes an aggregate of heterogeneous entities. This hyperonymic value is obvious in *toolage* as well, but was not found for *plumage* or *sailage*.

– *freckling*
– *hair*

The leading question here is whether any of these nouns is collective.

Nouns in *-age* are clearly not collective, but aggregate nouns, like denominal nouns that denote pluralities of heterogeneous entities (e.g. *jewelry*) (Gardelle 2018b). The study will focus on *foliage* and *plumage*, as others are not found, or too scarce, in Google Books. Like any plurality, *foliage* and *plumage* apply to more than one unit (e.g. *plumage* may not be said of a single feather; ??*a leaf is foliage* is at best odd); as such, they imply cohesion among the units, as evidenced by the possibility of collective predications, as in: *dense foliage filled a valley* (2010, Google Books). The nouns do not denote a grouping of fully differentiable entities, as N-s do: as with *jewelry* or *furniture*, they do not license an anaphoric expression with a possessive determiner and a noun that denotes a part of a unit: while *pluck leaves from their stems* is acceptable (2015, Google Books), *'pluck (the) foliage from its stems' is not. This shows that the units are not the level of reference, but are integrated in the plurality. Similarly, qualitative differentiation among the units in the plurality is impossible: *the foliage is different* may not indicate that the leaves within the plurality are different from one another. Yet, again as with *jewelry* or *furniture*, the noun does not reflect a double layer of construal: a thorough search on Google shows that *heart-shaped foliage*, for instance, has to denote the shape of individual leaves, and may not denote the overall shape of a bush or tree. This is very different from the collective noun *flower arrangement*, as in the following: *In front of her was a giant heart-shaped flower arrangement with hundreds of red roses* (2014, Google Books). Here, the shape is that of the arrangement as a whole, not that of each flower; similarly, *giant* gives the size of the whole, but each individual rose might be small.

Foliage and *plumage* differ partly from *furniture/jewelry* nouns. First, they do not license *piece(s) of* to denote one leaf, or one feather: the only noun that licenses

piece(s) of is *foliage*, and the string is found either for a piece of leaf (carried about by an ant, for example), or more commonly for leaves on a branch in flower arrangements, as in the following:

(19) Establish a central vertical axis by placing <u>a piece of foliage</u> centered near the back edge of the container. The height of this stem should be slightly lower than the desired finished design height.

(2007, Google Books – from Gardelle 2018b)

In other words, *foliage* does not mean 'a set of leaves'; rather, it means 'a plurality of leaves fixed to their support' (a branch or branches) (Gardelle 2018b). Similarly, *plumage* and *sailage* denote feathers attached to skin and sails fixed to masts. Consequently, while the string *leaves and foliage* may be found, just as one can say *jewels and jewelry*, and while *more generally* may be inserted after *and* (*leaves and more generally foliage*), the effect is different from what we have with *jewels and (more generally) jewelry*. The gloss is not *leaves and more generally any kind of foliage*; rather, 'more generally' implies a change of scale. The shift is from the scale of individual leaves to the broader picture. This is obvious in extract (20): *leaves* makes the individual leaves perceptually salient, while *foliage* seems to apply to the background, the mass of leaves fixed to their supports, possibly lending more visibility to the supporting branches (which, however, are not 'foliage' themselves, just as flower stems are not 'flowers'):

(20) When making garden quilts, our urge is to include an overabundance of flowers and not enough <u>leaves or foliage</u>. Next time you are standing in a garden, look around and actually study the ratio of <u>leaves and foliage</u> to the number of flowers. You'll be surprised!   (2003, Google Books, from Gardelle 2018b)

Because *foliage* has to be attached to branches, and *plumage* to skin, the perception of *foliage* and *plumage* may become that of an actual continuate, as evidenced by the metaphor of clothing, as in: *masasa trees, <u>clad in their outlandish spring <u>foliage</u></u>* (2008, Google Books, from Gardelle 2018b). This gradual zooming away from the individual leaves explains why these nouns are non-count: as proposed by Croft and Cruse (2004: 64), "*[f]oliage* construes the entity as a relatively homogeneous substance, without clear boundaries (a mass of foliage can be borne on several trees). […] There is also a quantitative scalar adjustment involved: *leaves* evokes a more fine-grained construal than *foliage*." This confirms Kleiber (1990)'s interpretation of the non-count feature at work in *furniture* nouns: there, not only are the pluralities construed as being of different kinds, but there is also a slight form of homogenisation which makes the resulting plurality more "continuous" than N-s would. In this, the present study follows Langacker's analysis in (21), although the term "mass" will be left aside as not being the most suitable.

(21)   [a plural] profiles a mass that we can think of as being formed by replicating indefinitely many times a discrete entity that we are accustomed to dealing with individually. […] [the non-plural mass noun] de-emphasizes this aspect of its composition and focuses instead on the sense in which it can be regarded as continuous.   (Langacker 1991: 78)

The same analysis holds for *freckling*, which thus, too, denotes an aggregate. As for *hair*, it also primarily denotes entities attached to a support (the scalp or, in the artificial toupee business, an artificial 'skin'). The non-count use is more recent than count *hair/s* (OED 2018), and reflects a lesser degree of individuation of the units. The noun differs partly from *foliage* or *plumage*: in addition to cohesion (e.g. *dense hair*), it shows what seems to be non-additive qualities: *her cloud-shaped hair* (2009, Google Books), for instance, gives the overall shape formed by the plurality, not the shape of each individual hair. Is *hair* a collective noun, then? The conclusion drawn here is that it is not. Non-additivity is restricted to cases of contextual bounding, whether direct (definite NP: e.g. *her cloud-shaped hair*) or indirect (e.g. *John has thick hair*, in which the hair is that attached to John's head). When the context does not provide bounding, *hair* is strictly additive; for instance, when making a toupee or a wig, as in *Buy a package of raw human hair from a beauty store in your city*, rephrasing as **'Buy cloud-shaped hair'* would be nonsensical because individual hairs cannot be cloud-shaped. The possibility of non-additive properties is due to the fact that when the aggregate is bounded in context, it may be construed as a mass. Thus it would be perfectly acceptable to say, instead of *her cloud-shaped hair*, *the cloud-shaped <u>mass</u> on her head*. This shows that the construal is not that of a group, a plurality of entities, but of a homogeneous mass, like *bread* or *butter* (e.g. *heart-shaped bread/butter*).

    In conclusion, there are no collective non-count nouns for inanimates in English: the /non-count/ feature blocks the possibility of a double layer of conceptualisation, so that the pluralities may only be construed as aggregates, more specifically aggregates of entities that cannot be counted.

5.4.2 Animals

Only a handful of typically non-count nouns may denote pluralities. They are of two kinds: singular-only *game*, and a few which license either singular or plural agreement: *poultry*, *livestock*, *vermin* and *wildlife*. They are examined in turn.

    Game often does not specifically denote a plurality; *no eating of game*, for instance, means *no eating of this kind of meat* rather than **no eating of several animals*, and similarly, one might have *no eating of horse* (rather than *of horses*) (Gardelle 2014: 116). This is due to its non-count feature, but also to its origin: it is derived

from the inanimate sense (something to play with), which was transferred to the domain of hunting, and metonymically to the animals that are a source of pleasure. Still, *game* has a definite /plurality/ feature in sentences such as the following:

(22)   I ate squirrels <u>and other wild game</u>; the animals were never wasted.

<div align="right">(COCA, from Gardelle 2014: 116)</div>

The *Xs and other Y(s)* string shows that *game* is a hyperonym of *squirrels* and other species; like *furniture*, it will be considered a hyperonym of plural classes here. It denotes an aggregate, not a collective whole: *game is composed of squirrels and … is impossible, as *game* denotes a class (*squirrels* ARE *game*), not a part/whole relation. Consequently, although the plurality shows cohesion, there is not a double layer of conceptualisation (there are no non-additive properties).

As for nouns of the second kind, they might at first sight be thought to license hybrid agreement: for instance, one finds:

(23)   (COCA, from Gardelle 2014: 116)
    a.   Livestock <u>is</u> kept on the other side of the fields.
    b.   And livestock <u>are</u> forcing other animals out.

This, however, is not hybrid agreement as for count collective nouns (cf. *the committee is/are …*): when within the NP, a demonstrative determiner has to be used, instances of plural verb agreement were only found with *these/those livestock* (as opposed to <u>this</u> *committee* <u>are</u> …). A single instance of true hybrid agreement could be found, with *wildlife*, in the following extract from a novel – whether it reflects wider use, or is a specificity of this author, cannot be ascertained:

(24)   Exotic birds singing in the sky, monkeys swinging on trees above him, lizards and snakes slither by his feet. Oddly the wildlife <u>is</u> going about <u>their</u> business as if Jim were not there.   (2012, Google Books)

In the other cases, the hypothesis made here is rather that the nouns undergo type coercion, like count collective nouns such as *(ten) crew* studied in Chapter 4 (§ 4.1.3). A study of possible combinations with determiners gives the results in Table 8 (Gardelle 2016a: § 10):

Table 8. Occurrences in the COCA (√) and Google Books US (○) of a sample of combinations with uninflected plurals of collective origin (after exclusion of irrelevant results; search 2016)

	these/those	one	two	how many	various	number of	several
livestock	√ ○			○	○	√ ○	
poultry	○					√	
vermin	√ ○	√			○	○	
wildlife	√ ○			○			

For instance, one reads:

(25)   "People wanted to know what was happening and <u>how many wildlife</u> were being hurt," said Kristin Johnson, senior manager for online integration at NWF.
(2013, Google Books)

As with *crew* nouns, only the demonstrative determiners are licensed by all, while at the other end of the scale, low numerals are typically impossible. The uninflected plural has the same value: it reflects a low degree of individuation of the entities, which are defined primarily through the class to which they belong, and are expected to live in groups (herds, flocks, or just sharing the same environment in the case of *wildlife*). Unlike *crew* nouns (including *fauna*),[7] there is no change of reference: whether singular or plural, *livestock*, for instance, names the nature of the entities, a class and not a group. The difference is only one of construal: the uninflected plurals make the entities slightly more salient than the non-count singular uses (as evidenced by the possibility of *a number of* for most of these nouns). Like uninflected plural uses of *crew* or *fauna*, there is no double layer of conceptualisation: all properties of age, shape or size have to be additive. Such uses are old: the OED (2018) has an example of *many more Powltry* in 1624.

As regards extract (24) above (*the wildlife is going about their business*), it may be analysed as a different case of type coercion: the singular NP is given collective reference. One condition is that the plurality be bounded in context (*the wildlife*): with a bare NP, hybrid agreement would have been impossible (wildlife is going/ goes about *their business). This will be regarded as coercion because no other occurrences of hybrid agreement could be found (in other words, hybrid agreement does not seem to be freely available, and as was mentioned above); and even in cases of contextual bounding, the noun may not take non-additive properties of size, age or shape (e.g. *small* may not denote a low number of species in *the/a/this country's small wildlife*). It may also be noted that unlike *fauna*, *wildlife* may not appear as N1 in an 'organised plurality' construction (*a wildlife of [animals]).

As a conclusion, no non-count nouns that denote pluralities of animals are collective, though *wildlife* is found once to be coerced into a collective use. Here again, the highest level of integration is aggregate level.

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7.   While *a rich fauna* may be glossed as *a rich set of animals*, *these fauna* denotes the units themselves: the animals in question *are* fauna. *Fauna* is therefore of the *crew* type: a (primarily, originally exclusively) collective noun which has taken a 'member of' sense when an uninflected plural. See 3.3.3 and 4.1.3.2.

5.4.3   Humans

It is a well-known fact that non-count nouns for human *individuals* are extremely uncommon, once more reflecting the high degree of individuation commonly associated with that end of the Animacy Hierarchy. The question addressed here is whether there are any for *pluralities* of humans. It was established earlier in the volume (§ 3.2.4.2, footnote 7) that non-count uses of *readership* and *viewership* did not denote pluralities of people, and therefore stood outside the scope of the present study. The nouns considered here are of two kinds: names for departments, such as *management*, and nouns that name the human species, such as *mankind*.

5.4.3.1   Management *and other departments?*
Management is one of a handful of nouns which can head bare NPs that denote groups of humans in the business sector, as in the following:

(26)   Do what <u>management</u> wants.   (2015, Google Books)

Other examples are *staff*, *marketing*, *supervision*, or *wardrobe* for theatres, which is defined as follows by the OED (2018): "Without *the*. The people responsible for providing or maintaining costumes for a theatre, film company, television studio, etc.; the costume department." A search for the string '[noun] wants' in Google Books (May 2018) yields further examples, such as the following:

(27)   And, if they've got two or three kids as well and, instead of showing up at 2:00 in the afternoon they show up at 8:00 in the morning, you're not going to send them home – but <u>staff wants</u> to send them home, and tell them to come back.
                                                                                (2006, Google Books)

These uses are not mentioned in grammars or specialised studies. They are not uninflected plurals like *(these) clergy* or *(ten) staff* (§ 4.1.3): as shown in the examples above, the verb commonly takes singular agreement. More precisely, the NPs license hybrid agreement of the verb, which may be in the singular or the plural. The question is therefore whether the head nouns are collective nouns, or collective senses of nouns, and so whether there are non-count singular collective nouns in English.

First of all, it must be concluded that these nouns are not non-count, despite their occurrence in bare NPs: hybrid agreement occurs in the same way when the NP that denotes a business department is in the plural, as in the following, obtained through the same search:

(28)   <u>Human resources wants</u> to know when you can interview someone for the new supervisor's position.   (2015, Google Books)

(29) (Sales leader, exhibit marketing) <u>Sales</u> wants it now and doesn't mind if it's only 80 percent done; <u>marketing</u> wants more time, more research, and more budget.   (2010, Google Books)

The fact that a plural NP (*human resources*, *sales*) can combine with a singular verb (*wants*) shows that the label given in the NP is in fact short for 'the human resources department', 'the sales department' and the like. In other words, the bare NP may be viewed as a form of proper name, rather than a non-count noun like *furniture*.

As regards their status, these NPs have collective reference, as reflected by the fact that they license hybrid agreement (see § 3.1.4.3), precisely because they name a department. The referent also exhibits cohesion: for instance, *How often does senior management <u>meet</u> to review continual improvement?* (Google Books). But the collective reference is the result of a metonymic shift, from the department to the people in it. The noun itself, it is concluded here, is not collective; the NP gets a collective facet as a result of frame metonymy, just like nouns such as *hospital* or *football* in § 3.1.4.2. Because the collective reference emerges from the frame, sometimes the shift from department to workers may be much more partial, especially in predicative constructions such as: *You need the paint guy tae get you paint. <u>I'm carpet. I can only get you carpet</u>* (2002, series *Still Game* season 5 episode 2, 9'30), or *Now <u>she's marketing and I'm sales</u>, and we trust each other.* (2008, *Global Cosmetic Industry* website, Google).

5.4.3.2 Mankind, humankind *and* humanity?
Unlike the *management* type in 5.4.3.1, these nouns are clearly collective. This is a major finding, as a number of studies restrict the class of collective nouns to those with prototypical count behaviour. But as we will see, these nouns are not non-count.

Several tests show collective status. First, tests (a) and (b) are felicitous, at least for *humankind* and *mankind: humankind is composed of individuals […]* (1998, Google Books), *humanity is composed of billions of human beings* (2009, Google Books). No instances were found with *mankind*, but this may be due simply to the fact that *man* in the compound already specifies the nature of the units. In addition, the three nouns license *members of*.

Secondly, the three nouns license hybrid agreement of the verb. The OED (2018) even specifies that *mankind* was "formerly frequently with plural agreement", which is confirmed by a Google Books search. Here are a sample of examples, taken from Google Books unless otherwise stated:

(30) All this numerous <u>mankind</u> ha<u>s</u> the right to a better and better economical and moral life.   (1930)

(31) The more numerous <u>mankind</u> become_, the more sedulous must be <u>their</u> exertions to procure the necessities of life. (1824)

(32) <u>Humankind</u> is very bad at predicting what will make <u>it</u> happy. (2004, OED)

(33) All experience has shown that <u>humankind are</u> more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. (2013)

(34) <u>Humanity</u> could never pull <u>itself</u> up by <u>its</u> own bootstraps. (1937, OED)

(35) <u>Humanity</u> thought <u>they</u> had done something marvelous, but in the sight of God their tower was insignificant. (2003)

A few comments must be made about these findings. First, no instances of plural agreement in the *verb* were found for *humanity*, but as was seen in Chapter 2, some count collective nouns are predominantly found with singular agreement in the verb as well. Secondly, cases of plural agreement are confirmed to be plural override agreement: unlike *livestock* nouns studied earlier (5.4.2 above), the head noun itself is singular: no instances of uninflected plural uses (*these/*those mankind/ humankind/humanity) were found.

These characteristics bring us back to the definition of "non-count nouns". At first sight, these nouns fit the definition of non-count uses: Huddleston & Pullum's (2002: 339–340) tests apply. They are used in bare NPs in all the examples given here; they are incompatible with a numeral, *another* or *every*; and they may be preceded by *all*. Merriam-Webster (1989: 621) explicitly describes *mankind* and *humankind* as "mass nouns". They may take *a*, which, "under restricted conditions, can combine with a non-count singular noun", as in *Jill has a good knowledge of Greek* (Huddleston & Pullum 2002: 339). In such an example, "the effect of *a* is to individuate a subamount of knowledge, her knowledge of Greek, but this individuation does not yield an entity conceptualised as belonging to a class of entities of the same kind", hence *Jill has an excellent knowledge of Greek and Liz has another. The same goes for *mankind*, *humankind* and *humanity*.

Yet these nouns do not behave exactly like non-count nouns. Unlike *furniture*, *foliage* or *livestock*, they are not singular-only: they may take a plural form (N-s) if the context is right – although this is extremely uncommon, as there is only one human species. For instance, Google Books has the following occurrences: *there are not two <u>mankinds</u>* (1955); *two cultures, even two "<u>humankinds</u>"* (2018); and *two religions, two civilizations, two <u>humanities</u>* (1863). These nouns, in fact, resemble *man*, which is also used generically in a bare NP although it is fully count (*two men*).

Man, it is argued here, is the key to understanding why these three nouns can be collective, that is, reflect a double layer of construal, despite the lack of determiner: they are not non-count. It is the /non-count/ feature that blocks the double layering for all other nouns of English that denote pluralities of entities. As

for generic uses of *man* (*the horse*, *the cat*, but *the man), I suggest that the use of *humankind*, *mankind* and *humanity* in bare NPs is due to the fact that humans do not consider themselves one species among others, but as self-standing. *The* would indicate that the species is pinpointed within a broader set of species (just as *the Mediterranean*, for instance, pinpoints the Mediterranean within the broader class of seas), because *the*, as noted by Cotte (2001: 11), requires a form of distancing: "definiteness [originates in] a form of distancing that apprehends from outside, in a broadened perspective, the identity, the qualities, the situation that establish uniqueness" (my translation).[8] It is impossible to distance oneself from one's own species (Cotte, personal communication 2018). Similarly, *the Americans* registers an outsider's perspective, which makes it unlikely to be said by American speakers (except perhaps journalists, who often take such a perspective).

Moreover, as was noted about count *race* and *species* (§§ 3.2.2 and 3.3.2.1), although *mankind*, *humankind* (note 'kind') and *humanity* (originally 'the quality of being human') ought to be naming a species, a class, humans tend to consider themselves not as specimens of a race, but as a group. This is obvious in extracts (32) and (34) above, which suggest a common destiny, the possibility of collective action. Consequently, it is a group, not a class, that is construed. The same could be said of *the human race* – though as *human* is a modifier, humanity is pinpointed within the broader class of races, hence *the*.

Due to these specific aspects of construal, when the referents lose their unique status, the three nouns license non-additive properties of size or age, exactly like any count collective noun: *a larger mankind* (1975, Google Books), *a new human-kind / the old humankind* (1998, Google Books), *an old humanity*, defined as *the human race before and apart from Christ* (1979, Google Books). Moreover, again like any count collective noun, *mankind* and *humankind* combined with *a* may be used as N1s in binominal 'organised plurality' constructions, although this is very uncommon: *a mankind of brothers and sisters* (2006, Google Books), *a humankind of mystics* (2001, Google Books).

5.5   Conclusion

This chapter has given a better understanding of the place of non-count nouns among the various ways of denoting pluralities of entities, with several significant theoretical breakthroughs.

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8.   "[L]e défini [naît] d'un recul qui saisit de l'extérieur, dans une perspective élargie, l'identité, les qualités, la situation qui font l'unicité d'existence".

First, thanks to an analysis of *furniture* nouns against the broader set of linguistic means of expressing pluralities of entities, the study has clearly established that singular non-count nouns preclude a double layer of construal, and as such, may only denote aggregates. Three nouns could have been thought to be counter-examples: *mankind*, *humankind* and *humanity*, which were found to be collective. But although in most contexts, they appear in bare NPs, a number of arguments showed that they are not non-count: the lack of determiner is motivated by the fact that they designate humans. In that, they are similar to *man* for individuals. This major difference between *mankind* nouns and truly non-count singular nouns also confirms that it is important to establish a distinction, among nouns that denote pluralities of entities, between collective nouns (which convey a double layer of construal) and aggregate nouns (which do not, despite a higher level of unit integration than mere groupings). What aggregate nouns denote at a lexical level are classes, not groups; they specify the nature of the units, because the relationship between the members and the plurality is BE. They may therefore be N2s in binominal constructions in which N1 is a count collective noun, such as *a set of furniture*, *a bunch of foliage* or *a herd of livestock* ('organised plurality' construction). Collective nouns, on the other hand, denote a new whole obtained by grouping together the units; they have some non-additive properties of size, shape or age (e.g. *a big set of furniture* does not imply that the items themselves are big). In these binominal constructions, N1 gives the organising principle, in the form of a /collective/ feature for a collective noun, while N2 specifies the nature of the units that compose the plurality.

Secondly, the study put forward the concept of "hyperonyms of plural classes" for *furniture* nouns. This, it is argued, is the only hypothesis that accounts for all the specificities noted by various linguists. The model has theoretical consequences for the status of the inflectional plural in the mental lexicon: as suggested by Langacker (2008: 346), it could well be more than a morphosyntactic feature pertaining only to discourse level (see also § 4.1.1). Further research is needed there. The study also addressed the largely ignored set of non-count nouns that denote pluralities of homogeneous inanimates (e.g. *foliage*), as well as the few terms for pluralities of animals, and has shown that none of them are collective, either.

Finally, the set of non-count singular nouns that denote pluralities has provided further evidence of the special status of humans (or to a lesser extent, animates) in the hierarchy of entities. Only inanimates have a large number of non-count nouns that denote pluralities of entities: 57 nouns were found in the tentative list, as opposed to only 5 for animals and none (though with the very special case of *mankind*, *humankind* and *humanity*) for humans. This reflects the higher degree of individuation of humans in our conceptualisation of the world around us; humans

stand not only at the top of the Animacy Hierarchy, but also at the top of a partly related individuation hierarchy, one version of which is proposed by Siemund (2008) (36) (see also for instance Audring 2009: 124; Gardelle & Sorlin 2018: 143):

(36)   extract from Siemund (2008)'s "hierarchy or continuum of individuation", from Sasse's (1993: 659) morphosyntactic distinctions
proper names > humans > animals > inanimate tangible objects > abstracts > mass nouns

What remains to be seen now is whether there are any collective nouns among plural-only non-count nouns, despite the /non-count/ feature – and more generally, what mode(s) of construal these nouns convey.

Lexical plurals that denote pluralities of entities

The grammatical tradition, both for English and French, has from the very beginnings put forward the idea of a discrepancy between (plural) denotation and (singular) morphology as a definitional feature of collective nouns (see § 1.3.2). For instance, Jespersen (1913: 72) gives the following description: "words which at the same time are in one respect singulars as denoting units, in another respect plurals as denoting more than one thing or person." Consequently, lexical plurals have often been rejected from the class of collective nouns on the sole grounds that they did not have singular number. For example, although Lammert (2010: 44) has a broad approach to collective nouns, including singular non-count nouns of the *mobilier* ('furniture') type, she does not question the tradition for number, and simply takes it for granted that "from a formal point of view, collective nouns are singular words" ("formellement, les noms collectifs sont des mots singuliers", my translation).

Yet this legacy from traditional grammatical descriptions appears arbitrary, because collective status is based on semantic grounds, not on formal properties. Moreover, the notion of internal plurality, which was shown to be a central feature of collective nouns (see § 1.1.2), is regularly applied to lexical plurals, such as French *cieux* 'heavens' or *obsèques* 'funeral [lexical plural]'(Furukawa 1977: 30; Lowe 2007: 306). For these nouns, which do not denote pluralities *of entities*, internal plurality, that is, "a view of plurality that ultimately comes out as externally one, though internally multiple" (Guillaume, quoted in Valin, Hirtle & Joly 1992: 96, my translation), is evidenced by the fact that the referent cannot be broken down into a sum of units: *heavens* are not *a heaven + a heaven + etc. The same holds for pluralities of entities: *belongings*, for instance, does not name replicated items; it does not subdivide as *one belonging + one belonging + etc.

As a consequence, a few linguists cite English lexical plurals (especially *cattle*) as collective nouns. Jespersen (1913: 93), despite his earlier description of collective nouns as singular in the same volume (see above), labels *cattle* a "plural-only collective".[1] Koptjevskaja-Tamm (2004: 1071) makes *cattle* a typical collective noun

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1. Jespersen also cites *vermin*, but it is not an actual plural-only noun. It is rather an initially singular non-count noun that underwent type coercion, like *livestock* (see the analysis in § 5.4.2).

(extract (1)). Depraetere (2003: 96, see § 1.3.4) even regards *cattle* as the most prototypical collective noun.

(1) Collective nouns are semantically dual – they refer to a multiplicity of clearly discernible entities 'hidden' in a collection, which is either bounded (*herd*, *family*) or unbounded (*cattle*, *furniture*) at a higher level of abstraction.

<div align="right">(Koptjevskaja-Tamm 2004: 1071)</div>

The question raised once again, therefore, is that of the categorisation of lexical plurals: are some of them, or all of them, collective; more generally, what construal(s) do they convey?

This question may only be answered once a fuller overview of the set of nouns concerned is provided: there are many more nouns than just *cattle*, and most of them denote pluralities of inanimates rather than animals. A few are used for humans. Section 6.1 therefore proposes a typology of lexical plurals that denote pluralities of entities; the list reveals a remarkable instability of the plural feature, which poses some theoretical issues. Section 6.2 goes on to consider the type of plurality they express; they are found to be all aggregate nouns. Section 6.3 finally explores why lexical plurals should be preferred over N-s, or over non-count singular nouns, to denote a given plurality; for instance, why is *givables* plural, but *furniture* singular, and *collectible(s)* count? Preferences are accounted for partly in terms of construal, but also partly as a result of morphology; the notion of morphological "attractors" is proposed.

6.1 Overview and typology of lexical plurals that denote pluralities of entities

From a formal point of view, lexical plurals come into two categories: plural-only nouns (or *pluralia tantum*, defined as nouns that do not have a singular stem, e.g. *insignia*), and any other non-compositional plural, that is, nouns for which a singular base exists elsewhere in the language, but which may not be analysed as 'more than one [stem word]' (e.g. *waters* does not mean 'more than one water') (Acquaviva 2008: 392).

Lexical plurals that denote pluralities of entities only represent a small fraction of the set of lexical plurals: for example, they do not include nouns that denote bipartite objects (sometimes called "summation plurals", e.g. *trousers*, *tweezers*), diseases (e.g. *measles*), games (e.g. *draughts*) or events (e.g. *nuptials*) – for a full typology, see for instance Acquaviva (2008). The lexical plurals that denote pluralities of entities may be subdivided into two groups. A few are of collective origin, such

as *people* or uninflected plural *crew*; the others are superordinate terms for entities of different kinds. They are addressed in turn now.

6.1.1 *Crew, people* and other originally count collective nouns

These will only be mentioned briefly here, as they were considered in detail in §§ 4.1.3.2 and 4.1.3.3. As was seen, a number of count collective nouns that denote humans, such as *crew*, as well as one noun for animals, *fauna*, have undergone a type coercion process through which they have come to denote individuals that are expected to be members of a group of the kind denoted by the collective sense (e.g. *ten crew* is close to *ten members of crew*); in that sense, they denote aggregates. Most of these coerced uses do not license the singular (e.g. *cavalry*, *nobility*); they are therefore plural-only uses of the nouns. A few, to some speakers, license the singular with a numeral (e.g. *one crew* 'one member of crew'); still, this may be regarded as a coerced use of the lexical plural, as determination is not free (**a crew* 'a member of crew').

 Chapter 4 showed that *folk* and *people* stood out: the link to the collective sense is now lost (collective *folk* is now archaic in the sense 'people'; *three people* will not be construed as 'three members of a people'). Moreover, *people* and a form *folks* license free determination in the plural, including a low number such as *two*, as well as qualitative differentiation (*these two people look very different*). Consequently, they denote groupings of fully differentiable entities, like any *N-s*, rather than aggregates – but as a consequence of their origin, they do not have a singular form, which makes them lexical plurals.

6.1.2 Morphologically-marked lexical plurals

This typology is mostly based on Wierzbicka (1988), Huddleston and Pullum (2002)[2] and Gardelle (2016b). The nouns in this subcategory are all found to denote inanimates, which once more shows an influence of the Animacy Hierarchy.[3]

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2. *Remains* and *leftovers* will not be included here, as they do not have to be entities.

3. One word that has been excluded is *literati*, although it makes one specific entry in the OED (2018). It has a singular, *literatus*, which is still used today (e.g. in 2012, 2013 in Google Books). *Literati* is therefore just a Latin plural of *literatus*, and this is a basic case of count noun (*one literatus*, *two literati*, and so on, as confirmed by a Google Books search).

6.1.2.1   *Nouns with a lexical plural marker -s*

The nouns retained as lexical plurals are the following:

–   *-ings: belongings*, *furnishings*. The *-ings* ending does not necessarily derive a noun that denotes a plurality of *entities*: this will depend on the kind of event denoted by the verb. For instance, *lodgings* denotes a place (Huddleston & Pullum 2002: 344); these are not pluralities of entities.[4]
–   deadjectival nouns:
  –   *-ables*, which Clarke (1859: 82) already noted as being highly productive:[5] *durables*, *perishables*, *eatables*, *recyclables*, *movables/immovables*, *wearables*; occasional *sleepables* (clothes with smart technology to wear in bed) / *hearables* (hearable technology, such as smart in-ear headphones), *'givables'/'ungivables'*, etc. The boundary between pluralities of entities and pluralities of bounded substances is not always watertight: for instance, *perishables* may include food viewed as substance.
  –   others: *figurals*, *goods*, *greens*.
–   compounds in *wares: kitchenwares*, *woodenwares*. These are the only compounds in *ware(s)* found as lexical plurals. They are non-count, and also have a non-count singular version (*kitchenware*, *woodenware*).
–   [others]: *accoutrements*, *arms*, *arrivals* (which seems to be plural-only for inanimates), *clothes*, *covers*, *dishes*, *(personal) effects*, *groceries*, *munitions*, *refreshments*, *spoils*, *supplies*, *toiletries; odds and ends*, *bits and pieces*

6.1.2.2   *Nouns with a Latin plural ending*

–   -a: *ephemera* (paper collectibles)
–   -a after *-ic: erotica*, *esoterica*, *exotica*, *hebraica*, *Judaica*
–   -ia: *exonumia*, *insignia*, *juvenilia*, *memorabilia*, *militaria*, *paraphernalia*, *pyrobilia*, *regalia*
–   -(i)ana: *alumniana*, *americana*, *ballooniana*, *barberiana*, *baseballiana*, *breweriana*, *celticana*, *Christmasiana*, *Churchilliana*, *cricketana*, *footballiana*, *kitchen–iana*, *petroliana*, (now obsolete) *piscatoriana*, *Roycroftiana*, *Shakespeariana*, *Victoriana*, *Viking-iana*, *warholiana / Andy Warhol-iana*, etc.

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4.   *Trimmings* has not been included because it does not have to denote entities, especially in the phrase *all the trimmings. Surroundings* has been excluded as well: it does not denote just *things* that surround, but also, more generally, the "environment" (OED 2018), the "circumstances, conditions" (Merriam-Webster 2018).

5.   "A participial adjective ending in *able* is formed from many verbs; as *drinkable*, *eatable*, *movable*, *undrinkable*, *uneatable*, *immovable*. This sometimes becomes a substantive, and takes the plural; as *eatables*, *drinkables*."

6.1.2.3 *Remarkable lack of stability of the plural number*

One major finding at this stage, from a theoretical point of view, is that the boundary between morphological plural and lexical plural for these nouns is far from watertight. Huddleston and Pullum (2002: 345) and Gardelle (2016b: 358) had already noted examples, but the list above reveals that fluctuations are in fact almost the rule, not the exception. In comparison, nouns such as *furniture* or *crockery* are singular and non-count for all speakers (except in the outer-circle varieties mentioned in Chapter 5), and have been so for centuries.

First, several lexical plurals with an *-s* ending have a count stem elsewhere in the language. As noted by Huddleston and Pullum (2002: 343), *covers* is a lexical plural for bedding only, *dishes* only in the context of washing up (e.g. *wash/do the dishes*). The following can be added: *arrivals* is a lexical plural only for inanimates (whereas *the new arrival* may denote a human), *effects* only in the sense 'belongings' (*personal effects*); *bits* and *pieces* are lexicalised as plural in *bits and pieces*, but are count nouns elsewhere. The distinction between lexical and morphological plural, therefore, is sometimes a fine line: is *dishes* a plural-only use of the noun, or has the phrase *do/wash the dishes* simply become fossilised with a plural NP because several dishes usually get washed? The OED (2018) does not propose a separate entry for *dishes*; but it will be considered as a lexical plural, because as noted by Huddleston and Pullum (2002: 343), in *wash the dishes*, *dish* no longer means "a shallow bowl", but is a hyperonym of *cups*, *plates* and so on; similarly in *dry the dishes* or *put the dishes away*. The same question may be asked of *bits* and *pieces* in the phrase *bits and pieces*; because one element in a bunch of bits and pieces will not be called *a bit*, or *a piece*, these will be regarded as lexical plural uses. Conversely, *troops* is not regarded as a lexical plural here, because it seems to be the basic plural of the count collective noun *troop*.

Secondly, some nouns ending in *-s* undergo some form of partial reanalysis as N-s, that is, as count nouns with a morphological plural. *Arms* is plural-only, but in the compound *firearm*, with the same sense 'weapon', it is count; *groceries* is plural-only, but the *-s* is dropped in *a grocery store*, sometimes shortened as *a grocery; furnishings* enters the compound *home furnishing_ giant* as well as *home furnishings giant*, with both terms possibly used by the same author (e.g. Charles Lamb about IKEA, Google Books) – though alternatively, the form *furnishing* might just be a gerund. In economics, *goods* is reanalysed as a count N-s, that is, *a good* / plural *goods* (Huddleston & Pullum 2002: 345; OED 2018; Gardelle 2016b: 358); Google Books similarly has a few occurrences of *a durable* (Gardelle 2016b: 358). Finally, *belonging* is attested, though noted as 'rare', by the OED (2018), with examples from the 19th, 20th and 21st centuries. A Google Books search returns a few occurrences, such as (2):

(2)   Clare writes of the land as if he were a <u>belonging</u> of the land, as if it owned him, which is an idea one hears often in indigenous communities.

<div align="right">(2014, Google Books)</div>

This, in turn, raises the theoretical issue of the boundary between "plural-only" nouns that undergo reanalysis, and "plural-mostly" nouns. Plural-mostly nouns (Goddard 2010: 144), also known as "*pluralia* mostly" (Wierzbicka 1988: 520), or "chiefly plural' nouns" (OED 2018), are fully count, but typically found in the plural. Examples are *noodles*, *peas* or *beans*: it is fine to say that there are "*two noodles* or *three peas* left on a plate" (Goddard 2010: 144), though paying attention to individual noodles or peas is rare. Goddard (2010: 144) treats these nouns as "plural mass nouns" (that is, in the terminology used in the present volume, lexical plurals), despite their /count/ feature, because to him, "it is integral to the concept of *noodles* or *peas*, for example, that the kind in question consists of multiple small identical items […], whereas there is nothing similar in the conceptual content of regular count nouns, such as *cat* or *bottle*." But because the nouns are count, classification as lexical plurals can be awkward: the frequency of the plural seems to be more a matter of use than a grammatical constraint – in other words, we hardly ever need to refer to individual units, but we can if we want to. I will rather conclude, in the wake of Wierzbicka (1988: 520), that "just as some mass nouns are 'more mass' than others, some countable nouns are 'more countable' than others." This is not to say that the mass/count distinction is "a matter of degree"; "rather," "in the broad class of […] countable nouns, several distinct subtypes can and should be distinguished." *Noodles* or *peas* remain count nouns (N-s); they are therefore not included here. Lexical plurals will be regarded as having a /non-count/ feature.

Extending this analysis, it has to be concluded that to specialists of economics, who have count *good* in their lexicon/grammar, *goods* is not a lexical plural. But some informants rejected *a good*, which suggests that to them, *goods* is plural-only. Similarly, *belongings* is retained in the list above because although Google Books has a few occurrences of *two belongings* (e.g. *List two belongings or photos that recall cheerful times spent with your loved one*, 2015) or *a belonging*, the /count/ feature only seems to correspond to a coerced use. Conversely, *consumables*, *deliverables* and *valuables* have not been included in the list, because singular use seems to be more widespread (judgment based on the number of occurrences in Google Books). But decisions are sometimes difficult.

The case of *furnishings* or *groceries* in compounds is different: such specific behaviour in compounds has often been pointed out for bipartite entities (e.g. *a tweezer_ case*), which does not mean that the same speaker will say *a tweezer to refer to a pair of tweezers. *Furnishings* and *groceries*, like *tweezers*, are therefore plural-only nouns.

For two nouns, frequency of the singular is not sufficient to decide between "plural-only" (with coerced singular uses) and "plural-mostly": *accoutrements* and *refreshments*. A singular sense is recorded in the OED (2018), meaning 'one item', yet in the plural, the nouns do not seem to license numerals (based on a Google Books search); they therefore do not seem to be just N-s, so that they have been included among lexical plurals. The singular might be the result of coercion from the lexical plural use. Accordingly, the plural and the singular uses are recorded separately in the OED, within the same sense of the noun, with the plural use given first.

Even when number is stable in present-day English, a historical perspective shows cases of fluctuation over time. *Clothes* is originally the plural of count *cloth* (OED 2018). *Munitions* and *supplies* evolved from (the now obsolete) non-count *munition* and *supply*, *toiletries* from count and singular non-count *toiletry*.

Turning to plurals of Latin origin, that is, to plurals for which there can be no reanalysis of the lexical plural marking as a morphological plural -*s*, instability appears to be just as commonplace, although the very low number of occurrences of some of these words with a plural determiner (e.g. *these*, *a number of*) or as subjects of a verb in the present demands caution. Due to the lack of -*s*, reanalysis takes a different form. One noun, *insignia*, is reanalysed by some speakers as count singular, with plural *insignias* (Huddleston & Pullum 2002: 345; Gardelle 2016b: 358). For the other nouns, reanalysis yields non-count singulars. A Google Books search shows singular uses for at least: (-*a*) *ephemera*; (-*ia*) *exonumia*, *memorabilia*, *militaria*, *regalia* (for which the OED 2018 also notes a rare plural form *regalias*, in which case the reanalysis is similar to that of *insignia*); and (-*ica*) *erotica*, *hebraica*, *Judaica*. In Chapter 5, originally plural *automobilia* and *paraphernalia* were ranked among singular non-count nouns because the (few) occurrences found on Google Books, as well as OED definitions, suggested that the singular might be the only number used today; but historically, they are lexical plurals that have undergone the same process of reanalysis as other lexical plurals in -*ia*.

In sum, for pluralities of entities, very few nouns are and always have been lexical plurals only. This is remarkable. It could be related at least partly to the proximity between the morphosyntactic and the lexical plurals: they share a 'more than one' meaning, realised as 'more than one entity' for the morphosyntactic plural, as 'more than one part' for the lexical plural – a "non simplex" entity for Acquaviva (2008: 46), a "multiplicity of thing-like parts" for Wierzbicka (1988: 302). In other words, the two types of plural are "related but distinct reflexes of one core phenomenon, which is the use of a grammatical category (number) to encode part-structural properties of a specific lexical item" (Acquaviva 2008: 55).

Given the grammatical stability of most *singular* non-count nouns that denote pluralities of entities (e.g. *furniture*, *crockery*, see § 5.3.4.2), and given that the

phenomenon involves Latin plurals as well (for which the ending may not be 'confused' with the morphological plural marker *-s*), a semantic explanation is likely; this will be explored in § 6.3.

6.1.3   *Cattle* as an odd-one-out?

Cattle, at first sight, stands out from the others. It is the only lexical plural that denotes animals; unlike the other nouns that denote animates (*people/crew*), it does not originate in a count collective noun; yet unlike the inanimate nouns above, the plural is not morphologically marked. These differences beg further enquiry; Section 6.2 shows that they are no coincidence.

6.2   These lexical plurals as aggregate nouns

This section does not reconsider *people*, *crew* and the like, which were studied in Chapter 4 and briefly mentioned in 6.1.1 above.

6.2.1   *Cattle*: An aggregate noun resulting from coercion of a singular aggregate noun

The case of *cattle* is studied separately for two reasons. First, as noted in the introduction to this chapter, some cite it specifically as a good example of a collective noun. Secondly and more importantly, the process that made it lexically plural makes it different from the other nouns in the list.

   Cattle originates in the non-count singular *chattel* ("movable property", which was the only type of property considered to determine wealth in the feudal system, OED 2018). The noun underwent a semantic shift to "live animals held as personal property". The non-count plural use, which co-existed for some time with the singular, appeared later; *chattel* in this sense gradually became *cattel(l)*, then *cattle*, and the non-count singular use became obsolete (OED 2018).

   The explanation proposed here is that as well as this semantic and referential shift, *cattle* underwent the same type coercion as non-count singular nouns such as *livestock* or *poultry* (described in § 5.4.2 and which, incidentally, concern animals as well). There are still a few non-count singular uses. In the phrase *head of cattle* (e.g. *ten head of cattle*), *cattle* may well be remnants of a singular (cf. *ten items/pieces of* are always followed by non-count singulars);[6] and an occasional *this cattle* ('this species, animals of this kind') is found, as in (3) and (4):

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6.   Similarly, with singular-only *bétail*, French has *dix têtes de bétail* (literally, 'ten heads of cattle$_{sing}$').

(3) Our Rancher's Choice beef comes from grain fed Alberta raised cattle. <u>This cattle</u> is grass fed for a duration of time.

(2015, Meridian Farm Market blog, Canada)

(4) I gather his father didn't think turning his back on all of <u>this cattle</u> and all of this land for something as ephemeral as running was a very good idea.

(1999, COCA) (from Gardelle 2016a: endnote vi)

In the much more common plural uses, as for *livestock* and *poultry*, *cattle* does not license free determination: a search of COCA and Google Books (Gardelle 2016a: § 10) yields the results in Table 9.

Table 9. Occurrences in the COCA (√) and Google Books US (○) of a sample of combinations with *cattle* (after exclusion of irrelevant results; search 2016)

	these/those	*one*	*two*	*how many*	*various*	*number of*	*several*
cattle	√ ○	○	√ ○	√ ○	○	√ ○	√ ○

Low numbers, whether *two* or *one*, are extremely rare, and seem to be used mostly by professionals, such as farmers or auctioneers – which is not the case for *crew* or *clergy*, for instance: *two crew* or *ten clergy* are found in the general-public press.[7] As with the other coerced nouns, a singular numeral (*one cattle* 'one animal') appears even more constrained: no occurrences were found in COCA, and only two in Google Books US. This restriction is consistent with the analyses carried out for *crew/clergy* (cf. *one crew* for 'one member of crew', § 4.1.3.2): the singular via the numeral *one* is the last possible stage in the coercion process. Coercion is driven by a need to individuate the units within the plurality, to be able to name them at this level of abstraction, that is, via a superordinate hyperonym. Accordingly, a search for the string 'cattle and' on Google Books returns hits such as *cattle and poultry*, *cattle and crops*, *cattle and sheep (industry)*, etc. In other words, *cattle* denotes a category in the farming industry.

At lexical level, *cattle* denotes a class, not a group; in light of the analyses carried out earlier in the volume, it is a superordinate hyperonym of plural classes, with *cows*, *bulls* and the like as its hyponyms.[8] The noun gives the nature of the units,

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7.   Other nouns, such as *nobility*, *livestock* or *poultry*, are hardly used out of specialist contexts (historians, economics, farming, and so on), so that variation in speaker origin is impossible to trace. Further studies would be needed.

8.   About the possible hyponyms, the OED (2018) notes: "The application of the term has varied greatly, according to the circumstances of time and place, and has included camels, horses, asses, mules, oxen, cows, calves, sheep, lambs, goats, swine, etc. The tendency in recent times has been to restrict the term to the bovine genus, but the wider meaning is still found locally, and in many combinations."

and therefore has no non-additive properties of size, shape or age (e.g. *large cattle* has to mean 'large animals'); and it is compatible with a collective N1 that specifies a group (*a herd of cattle*). Consequently, it is an aggregate noun, not a collective noun as proposed by some.

6.2.2 Other nouns that denote entities of different kinds

6.2.2.1 *Hyperonyms of plural classes*
As shown in Gardelle (2018a), on which the whole of this section draws, the characteristic shared by all the other lexical plurals in the list is that they denote pluralities of entities of different kinds, thought of as being of different kinds. This explains at least partly why the nouns are non-count (Wierzbicka 1988) despite the /plural/ feature (see also 6.2.2.2 below). Consequently, the test for hyperonymy *X and other Ys* works, as in *Starbucks collectible cups and other memorabilia*, *headdresses and other regalia*, or *new season clothing and other arrivals*. As evidenced by these strings, the notion of "hyperonym of plural classes" developed in § 5.3 is particularly useful here.

Hyperonymic status reflects the fact that at lexical level, the nouns denote classes, not groups. This holds even for *belongings*: although in discourse, the plurality referred to is typically bounded (e.g. *my belongings*), use in a bare NP shows the same /class/ feature, as in (5) (from Gardelle 2018a: 37).

(5) 'You got any belongings?' he asked.   (2010, Google Books)
     'What are belongings?'
     'Things,' he said.
     'Things?' I repeated.
     'Stuff, clothes, and money?' he said.

The same definitional question asked about a collective noun, such as *What is a herd?*, would have included the notion of group in the answer (Gardelle 2018a: 37). Accordingly, from this extract, it is possible to derive *stuff, clothes, money and other belongings*, whereas with *herds*, the string **cows, bulls and other herds* is nonsensical. The nouns are therefore not collective. Accordingly, they do not have non-additive properties of size, shape or age (e.g. *small memorabilia*, or *small furnishings*, have to denote the size of the units), although like any plurality, they exhibit cohesion (e.g. *victims' belongings and furnishings were gathered or burned*, 2012, Google Books).

Some of the lexical plurals above (e.g. *ephemera*), but not all (e.g. *belongings*), have a number of obvious, well-established hyponyms, as could be expected of a hyperonym; for instance, guides to collectibles specify subcategories, such as, for *ephemera*, *cigar box labels*, *playing cards*, *postcards*, *bookmatch covers*, *razor-blade*

wrappers, and so on. Similar subdivisions appear on store websites, such as habitat. co.uk (accessed November 2018), which divides *soft furnishings* into *rugs, cushions and throws*, *curtains and blinds*, and *bedroom linen.* But a *whole* list, or even a satisfactory list, is usually impossible, except perhaps for *covers* and *furnishings*, because all these nouns have what Acquaviva (2008: 105) terms a "whatever" reading: *arrivals* are whatever (goods) will arrive in a shop, *furnishings* are whatever *furnishes* a place (in the old sense of the word, 'fill'), and so on. The shared characteristic may be a function, as with *furnishings*, involvement in the same event or situation (e.g. *belongings*, *arrivals*), a domain (for most collectibles, e.g. *ephemera* denotes any paper collectibles; also a cultural domain, as in *Judaica*), an era (e.g. *Victoriana*), an origin (e.g. *spoils*), or a lack of definite function (*bits and pieces*, *odds and ends* denote entities that cannot be put away with others because they do not belong with them). For many of the nouns, the morphology is transparent, specifying the "cohesive principle that unifies heterogeneous entities" (Acquaviva 2008: 104).

Due to this "whatever" reading, and due to the fact that the pluralities are construed as being made up of entities of different kinds, the classes denoted by these nouns are expected to be divisible into subclasses even when there are no well-established hyponyms. In the following example from Google, *Musing on movies, music, and other odds-and-ends* (2015), the title temporarily makes *movies* and *music* hyponyms of *odds-and-ends* (Gardelle 2018a: 38).

6.2.2.2 *Lack of interest in the individual units: Aggregate nouns*

The lexical plurals under study do not denote groupings of fully differentiable units like N-s, but aggregates; it is in this sense that the /non-count/ feature conveys a form of homogenization, of 'continuous' construal (in the sense given in § 5.1.2). The starting point is the plurality (the shared quality, domain, and so on mentioned above), rather than the unit, which allows for the units to be regarded as being of different kinds; the nouns are therefore non-count.

The backgrounding of individual units is weaker than with non-count singular nouns (e.g. *furniture*). Anaphoric expressions in the form *possessive determiner + part of a unit* are possible, at least with some of the nouns: for instance, *clothes … their labels* (compare **furniture … its labels*), *ephemera … their value* (compare **furniture … its value*), or *putting the groceries in their respective places* (2010, Google Books – compare **putting the furniture in its respective places*). The test is difficult to carry out, though, because most of the time, the parts of individual units are not considered, being irrelevant – which is further evidence of the lack of individuation of the units in the construal, compared with N-s. Moreover, the predicate *are all different*, which denotes differences within the plurality, is licensed by at least some nouns: *their clothes / the furnishings were all different*; one may cite, similarly, *my*

different clothes / all manners of differing clothes; the number of different groceries deployed in published recipe books (Google Books search, 2018). At least most of them also license some form of slightly individuating quantification: *a few (/ a number of) clothes/furnishings/goods* is common in Google Books, as is *many clothes*.

Still, the pluralities are more integrated than with N-s, which makes them aggregates. Acquaviva (2008: 87), after Allan (1980) and Pelletier and Schubert (1989), finds that acceptability judgments for quantification differ from speaker to speaker, and from noun to noun. In an experiment, *a few [X]* shows acceptability for *cattle* and *clothes*, but variable judgment for *belongings*, and rejection for *furnishings*. *These [X] resemble each other* yields acceptability for *cattle*, but variable judgment for *clothes* and *belongings*, and rejection for *furnishings*. Moreover, being lexical plurals, the nouns do not give the nature of the *individual* units: *dresses* are *clothes*, but a *dress* is not *clothes. Similarly, a search for the string *a [any noun] of [lexical plural]* shows that these nouns are not meant to provide individuation. For *clothes*, for instance, the strings are mainly *a change/suite/choice of clothes*. None of these individuates the units. Similarly, these nouns rarely occur with modifiers, unlike N-s, showing that the specific qualities of the items are not important; most of the time, it is only the category that matters. When individuation is required, Google Books shows a few occurrences of *items of [X]* with *clothes*, *furnishings*, *goods*, *supplies*, *groceries*, *munitions*, *durables* and *belongings*, although use of *item(s) of* with lexical plurals is noted as incorrect by grammars (e.g. Huddleston and Pullum 2002: 343). This would probably not be found acceptable by many, but it suggests that to these speakers at least, the plurality is construed as having very backgrounded units: this is what is normally found with a *singular* non-count noun.

I suggest that this use of *item(s) of* is no coincidence: it is precisely because the language does not provide means of individuating through a lexical plural that, when individuation is required at this level of abstraction, the only cognitively easy option is reanalysis, either towards more integration (use of *item* despite the plural number, or more extreme reanalysis as a non-count singular, which then makes extraction easier) or towards a count noun (e.g. *a good* in economics), largely depending on the morphology of the noun (*-s* or Latin plural ending – see 6.1.2.3 above). This could also partly explain the greater grammatical stability of non-count singular nouns, which background the units slightly more, and so license *item of*, *piece of* or other *of*-phrases (e.g. *a stick of furniture*).

It now remains to be seen why there are so many lexical plurals, despite the tendency for reanalysis for some speakers. This is what § 6.3 addresses, based on Gardelle (2016b).

6.3 Lexical plurals vs. N-s or singular non-count nouns: Construal and morphological 'attractors'

6.3.1 Preference for lexical plurals over N-s

As seen in Chapter 4, N-s (count nouns used with plural number) denote groupings of fully differentiable entities, a looser kind of unit integration than aggregates. The starting point is the unit, and the plural is obtained by reduplication, with an additional cohesive effect. Moreover, the units are construed as being of the same broad kind, since they can be counted. The question addressed now is as follows: *why* are pluralities of entities viewed as being of one kind for some (N-s), but of several kinds for others (e.g. lexical plurals)? It is not just due to an objective difference in the degree of heterogeneity: plural-only *figurals* or *durables*, if anything, are *less* heterogeneous than count *collectible(s)* or *accessory(-ies)*. A study of guides to collectibles and other types of nomenclatures (Gardelle 2016b) brings out two reasons.

One is construal, in relation to our experience of the entities: the lexical plurals exist specifically to consider heterogeneous items together, because at that level of abstraction, the entities form one broad category that stands in contrast with other categories. The construal may be of heterogeneous kinds because the entities "have a common place", are together "at the same time" and "for the same reason" (Wierzbicka 1988: 543), as with *furnishings* or *clothes*. Or as was seen above, the entities may be grouped together on the basis of a quality, a domain, etc., which is not enough to view a single kind, but which is the relevant one for classification. For example, *durables* are one of the three main categories of products, along with consumables and services; *figurals* are a category of collectibles; and so on (Gardelle 2016b: 362). As was noted above, these lexical plurals rarely take modifiers that specify individual properties of the entities: what matters is classification.

Construal, however, is not sufficient to account for preferences; otherwise, the three main categories of products (*durables*, *consumables*, *services*), for instance, should all be denoted by lexical plurals. An additional parameter, for a number of nouns, is "morphological attraction" (Gardelle 2016b: 363): some endings are productive to coin new words (they "attract" new words), and impose associated grammatical properties on them. For instance, adjectives in *-able* easily allow for nominalisation (see list above); when they do, those nouns are plural-only, with a relatively common propensity to be reanalysed as count if they denote pluralities of entities. Similarly, in the world of collectibles, *-a*, *-ia*, *-(i)ana*, *-ica* are favoured endings for subcategories of collectibles, whether well-established (e.g. *memorabilia*, *americana*, *cricketana*), rarer (e.g. *petroliana*, *pyrobilia*, *exonumia*, *breweriana*, *barberiana* and now obsolete *piscatoriana*), or nonce words (a Google search yields

Chrismasiana, warholiana / Andy Warhol-iana, footballiana, baseballiana, alumni-ana, celticana, Viking-iana, kitchen-iana, Roycroftiana). As described in Gardelle (2016b: 363):

> (6)   These endings are productive because they both make the 'collectible' status explicit, echoing *memorabilia*, and evoke prestige by looking Latin. These two factors, rather than sheer perception of the aggregates, appear to motivate word formation; and these endings in turn impose the [-count] feature and oscillations in number. This influence of morphology (rather than sheer construal of the aggregate) is evidenced by the fact that when authors in Google Books gloss these nouns, they invariably use a *count* noun (*collectibles*, e.g. *paper collectibles* for *ephemera*).

Similarly, *-ings*, and possibly *-als* for inanimates, derive lexical plurals; whereas it seems that *-ible* (e.g. *a collectible*, *a convertible*) or *-(a)tive* (e.g. *a relative*, *a derivative*) form count unit nouns. This could explain the grammatical difference between American count *collectible(s)* and British non-count *collectables*. One constraint on these endings is that the stem has to be a single word: *Civil War*, for instance, may not enter the pattern, hence *Civil War artefacts*, with a count head noun, rather than derivation through *-a*, *-ia*, *-(i)ana* or *-ica*.

6.3.2   Preference for lexical plurals over non-count singular nouns

Here again, whether the non-count nouns are singular or plural is motivated both by construal and by morphological attraction (Gardelle 2016b).

As regards construal, lexical plurals (e.g. *belongings*) and non-count singular nouns (e.g. *furniture*) that denote pluralities of entities have the /non-count/ feature in common, so that the units are more backgrounded than with N-s. But the present volume has pointed out the following construal differences:

– with lexical plurals, the units in the aggregate are less backgrounded than with non-count singular nouns (see § 6.2.2.2 above); this is in keeping with the fact that the plural is morphologically marked on the noun (*-s* or Latin plural ending);
– only a non-count singular (though not all of them) may see its denotation extended to the domain associated with the entities, whereas a lexical plural has to denote the units only: *clothing laws* vs. **clothes laws*, *new directions in jewellery* vs. **new directions in gadgetries/furnishings/…* (§ 5.2.4);
– there are no lexical plurals for aggregates of homogeneous entities (vs. *foliage*).

Wierzbicka (1988: 542–548) proposes the following additional trends:

–   boundedness in space: only plural nouns may (but do not have to) imply a "definite, limited amount" in a given place (e.g. *belongings*).
–   movable units: entities denoted by singular nouns are "fully transferrable (movable and removable) parts": items of furniture are always *furniture*, whereas this is not true of the pluralities denoted by some (though not all) lexical plurals, such as *groceries*.
–   discreteness of the units: singular nouns that denote pluralities of entities have to denote discrete entities, whereas this is not required of lexical plurals. For instance, *goods* might include butter.

These differences, it is proposed here following Gardelle (2016b: 365), are due to the number feature: the singular foregrounds some form of unity beyond the different kinds, whereas the plural foregrounds the plurality of units (in addition, there may be a morphological parameter at work – see below).

More specifically, as shown by Wierzbicka (1988: 543), what the singular foregrounds is a "unity of purpose". For instance, *cutlery* groups together entities "to eat with". The plural does not foreground that unity of purpose, but the plurality of units: as shown in 6.3.1 above, the entities are grouped either because they "have a common place", are there "at the same time" and "for the same reason" (Wierzbicka 1988: 540, 543), or because they share a common quality, domain, and so on (*figurals* have the shape of figures, *givables* are destined to be given, etc.) (Gardelle 2016b). For some nouns, the boundary between these shared features and "unity of purpose" is slim: it could be argued that *furnishings* are meant to furnish a place, *covers* to cover the bed and whoever sleeps in it, and so that they show unity of purpose even though they are lexical plurals. But these nouns are still compatible with the principle described: what is foregrounded is the plurality of units. *Furnishings*, and similarly *supplies*, originate in the deverbal nouns *furnishing* (economic sector) and *supply* (act of supplying); due to these initial uses, it may well be that for the entities themselves, in comparison, the plurality of units is more salient – compare with *a supply of water*, for instance. The same goes for *refreshments* (for further details, see Gardelle 2016b: 368–369). Moreover, for *furnishings*, the entities are of extremely varied kinds compared with *furniture*, which derives from the same verb. As for *covers*, a typical cover (e.g. a chair cover) has one layer; so bed covers, which typically include a sheet and a blanket or a quilt, pillow cases, etc., are characterised by an obvious plurality of items in contrast with the prototypical *cover*. In other words, what matters is *relative* construal, rather than absolute ontological features.

The contrast between non-count singular and plural construal is perhaps best encapsulated in the pair *clothing/clothes*. Although the two nouns are often

interchangeable (they both denote a variety of things that people wear), *clothing*, which foregrounds unity of purpose, may be glossed as "that which serves to clothe", whereas *clothes*, which foregrounds the plurality of units, may be glossed as "the items of different kinds that someone dresses with" (Gardelle 2016b: 365). Consequently, as noted by Wierzbicka (1988: 547), *clothing* is preferred, for example, to speak of what a company produces, *clothes* for what someone is wearing. Or a charity might ask to "send clothing", whereas someone in jail will ask for "clothes". The two nouns also have different preferred collocations in compounds ((7) below): *clothes* construes the clothes as the items used in everyday life, whereas *clothing*, which foregrounds purpose, is more abstract.

(7)   most frequent collocations for *clothing* and *clothes* as modifiers in nominal compounds in COCA (Davies 2008–) (Gardelle 2016b: 366-367):
  – *clothing*: store(s), boutique, company, manufacturer, business, factories, industry, items, sizes, allowance, brands, etc.
  – *clothes*: dryer/drier, closet, hanger(s), line, washer(s), basket, hamper, shop, pegs, etc.

The difference in construal also explains why only *clothing* may easily extend to more untypical items that may cover someone's body, such as sitting bags and coveralls, leg covers, bibs and aprons on shopping websites for children with disabilities (such as livingmadeeasy.org.uk): it foregrounds a "common purpose", whereas *clothes*, which foregrounds the plurality of items, has as its prototypes everyday clothes such as skirts, trousers, shirts and so on. Similarly, only *clothing* may extend to domains (see *clothing laws* vs. *clothes laws* in § 5.2.4), and the nouns may enter the string *clothes and (more generally) clothing* (Gardelle 2016b: 367).

The same differences in construal apply to the other lexical plurals, including cases of number variation such as *kitchenware/-s* and *woodenware/-s*. There, the plural is rare compared with the singular, but the difference is obvious in the following (from Gardelle 2016b: 368):

(8)   Kitchenwares suddenly attained the status of Fetish objects in certain American circles, where you just had to have a Le Creuset casserole dish and a crepe pan the size of a manhole cover.   (2009, Google Books)

(9)   His cooking was done on a wooden plank bearing a stove and some basic kitchenware.   (2006, Google Books)

The beginning of (8) can be rephrased as *kitchenwares were suddenly Fetish objects …*, which shows a focus on the items viewed in their plurality; whereas in (9), "his cooking" announces a cooking technique, and so a purpose ('to cook with') prevails for *kitchenware*. The plural was also found in books on archaeology, maybe because archaeologists dig up disparate items rather than a whole range.

Construal is not sufficient: there are cases of morphological attraction as well. One attractor is *-ware*: shops, especially to name departments, make wide use of this compounding pattern for cooking and decorating (e.g. preferring *giftware* to *gifts*). Outside these contexts, *giftware* is not used; rather, it is because gifts were made into a whole department, and because a *-ware* compound is the preferred pattern for this kind of reference, that *giftware* was coined, with a corresponding compatibility of meaning ('gifts and more generally anything that may be given'). Due to the *-ware* ending, the noun is automatically singular non-count. Another highly productive ending in commercial contexts is *-wear*: again, the coining of a noun along this pattern is not just a consequence of the construal of the aggregate considered in isolation (e.g. in everyday life, lexical plural *beach clothes* is more widely used than *beachwear*), but also a reason why the aggregate is construed in that way.

6.4   Conclusion

In conclusion, traditional analyses of collective nouns are right not to include lexical plurals among collective nouns, but do so for the wrong reason: what matters is not lack of discrepancy between grammar (plural feature) and meaning (plural reference), but construal. All the nouns here denote aggregates – except for *folks* and *people*, which have evolved further and now denote groupings of fully differentiable entities, like N-s (but with no singular form).

The analysis of lexical plurals has also shown that there are a relatively high number of them (67 in the list above, plus coerced uses from collective or aggregate nouns such as *crew*, *clergy*, *cattle* or *poultry*), due to the productivity of a number of morphological patterns, such as derived forms in *-ables* or *-(i)ana*.

Lexical plurals are of two types: some are coerced uninflected plural uses of otherwise collective or aggregate nouns, while others do not have that origin. Recognising these two types, which has never been done before, is essential to understand the noun *cattle*: although it is often cited as an oddity of English, it is in fact totally consistent with the rest of the system. It is a lexical plural sense derived through coercion from a non-count singular aggregate sense. In this, it is similar to *(these) livestock* and *poultry*, for instance. Recognising different types also reveals, once more, the influence of the Animacy Hierarchy: coerced uses from collective nouns are almost exclusively for humans, coerced uses from singular aggregate nouns only for animals, while the second type of lexical plurals only denotes inanimates.

A further characteristic of lexical plurals is the instability of the plural number, either over time or due to reanalysis by some speakers. This had been mentioned in a few studies, but the sheer scale of that instability had been underestimated.

Such widespread instability raises theoretical issues, such as that of the boundary between plural-only and plural-mostly nouns. In the study, plural-only nouns, or uses of nouns, are shown to have a /non-count/ feature, while plural-mostly nouns are count – their use in the plural is a matter of experience of the entities, not of grammar. But the boundary is difficult to establish at times. This reflects the close connection between morphological and lexical plurals, "distinct reflexes of one core phenomenon" with a "more than one" meaning (Acquaviva 2008: 55).

The plural number was shown to contribute its own construal, like the /non-count/ feature. This was evidenced by a comparison between lexical plurals and N-s on the one hand (the non-count feature triggers more integration of the units, hence aggregates rather than groupings of fully differentiable entities), and non-count singular nouns on the other (the singular foregrounds unity of purpose, with possible extensions to domains, where the plural highlights the plurality of units, with slightly less integration of the units within the aggregate).

Finally, construal was found to be insufficient to account for grammatical properties of nouns that denote pluralities of entities: morphology may also have an influence. Some patterns, being highly productive, "attract" new words to them, which will take on the associated grammatical properties.

CHAPTER 7

General conclusion

The study has aimed to bring a better understanding of semantic plurality – that is, of the range of possible construals of 'more than one' entity. It has established that collective nouns are not an oddity of language, but one of several means of denoting, and referring to, a plurality of entities. All these modes form a very consistent system, and a complex one because the grouping operation, part of the broader operation of synthesis, is fundamental to cognition.

The number of nouns concerned is in fact rather high. Not taking into account discourse-acquired plurality (conjoined NPs, binominal constructions, NPs with collective reference but headed by non-collective nouns, and so on), focusing instead on the pluralities of entities denoted at lexical level (collective wholes and aggregates), and leaving aside partly substantivised adjectives, the typologies drawn for the present volume bring out the following figures:

–   197 count collective nouns, which stand as follows (see § 3.6):
    –   humans: 125 nouns, that is, 64% of collective nouns (48 collective-only nouns, against 77 with only a collective sense); to these should be added all the compounds and proper names that include one of the terms, such as *sub-committee*, *IRA* (Irish Republican *Army*) or *SNP* (Scottish National *Party*);
    –   animals: 15 nouns (8%; mainly collective-only nouns, 10, against 5 nouns with a collective sense);
    –   inanimates: 57 nouns (28%, equally distributed among collective-only nouns, 28, and nouns with a collective sense, 27, + 2 with a collective facet).
–   at least 143 aggregates (a count is more difficult because often, a whole pattern is productive), which stand as follows:
    –   humans: 10 nouns (7% of aggregate nouns): 0 aggregate-only nouns, but 10 nouns with an aggregate sense (9 mentioned in § 4.1.3.2, + *royalty*, see 4.1.3.2n)
    –   animals: 7 nouns (5%): 1 is singular-only (*game*); 1 is plural-only (historical coercion, *cattle*); 4 are either singular non-count or have coerced plural uses (*livestock*, *poultry*, *vermin*, *wildlife*); and 1 is a coerced plural from a count collective noun, as for most human aggregate nouns (*fauna*) (see 3.3.3, 5.4.2 and 6.2.1);

– inanimates: at least 126 nouns (88%): (singular-only) 53 for heterogeneous pluralities, 6 for homogeneous ones; (plural-only) 67 (see 5.3.4.1, 5.4.1 and 6.1.2).

This is confirmation that the field of pluralities had been hugely under-researched, due to the traditional focus on grammatical number. Hopefully, the semantic feature approach taken in this volume has brought out the consistency of the system: each mode of construal has a place on what I will call a "Scale of Unit Integration" for pluralities of entities.

7.1   The Scale of Unit Integration for pluralities of entities

The Scale of Unit Integration consists of five major steps, each of which has further subdivisions (Figure 4).

"Collective wholes" share a double layer of conceptualisation (a single whole, composed of units). The wholes have non-additive properties of size, shape or age, though some are more permeable than others. Collective wholes may be denoted by two types of linguistic items, one at discourse level, the other at lexical level. At lexical level are collective nouns. The /count/ feature was found to be a requirement for this double layer. Apparent exceptions are *mankind*, *humankind* and *humanity*, but these nouns are in fact not non-count: the plural (e.g. *two mankinds*), if the context is right, is possible, unlike *furniture* or *foliage*. The possibility to occur in a bare NP is probably due to the fact that we are ourselves humans, whereas *the* implies some form of distancing (cf. generic *man*).

Hybrid agreement was not found to be a requirement for 'collective' status: it is an effect of the Animacy Hierarchy which is superimposed on the basic agreement pattern of nouns, when they denote pluralities of humans or, to a lesser extent, animals. Moreover, a major finding was that hybrid agreement does not guarantee a collective *noun*; what it guarantees is only collective reference of an NP.

At discourse level, collective wholes are denoted by NPs headed by collective nouns, of course, but also by collective NPs within the broader "organised plurality construction" (which relates to what some linguists call the "pseudo-partitive construction"), that is, binominal NPs not necessarily headed by a collective noun (e.g. *a chain of islands*).

Collective wholes, which stand in a part:whole relationship with the units, were found to be different from taxons (e.g. *a breed of dog*), which denote plurality at class level. Although the whole may have properties of its own (e.g. *an old breed* does not imply *old dogs*), the semantic relation (e.g. *dog:breed*) is one of exemplar:taxon, not part:whole. Some cases of shifts from taxon to collective whole interpretations

were made out, in particular for humans, showing once again the specific status of humans in construal.

One step down the Scale of Unit Integration are "aggregates". It is perhaps one of the most important contributions of the present study to have revealed the extent of this type of plurality. "Aggregate nouns" have been mentioned by a handful of authors, as being non-count nouns that denote pluralities of heterogeneous entities, whether singular or plural (e.g. *furniture*, *furnishings*). But what the present volume has shown is that aggregate nouns form nearly as broad a category as collective nouns, and that aggregates are just as heterogeneous as collective wholes. What aggregates share is a form of integration of the units that goes beyond mere cohesion: the units cannot be freely counted, and so cannot be fully individuated, because the starting point of the construal is the plurality. Unlike collective wholes, they do not show a double layer of conceptualisation: at generic level, the whole does not have properties of its own for age, size or shape, and the noun names the class to which the units belong – plural-only *cattle*, therefore, is found to be an aggregate noun, not a prototypical collective noun as suggested by Depraetere (2003). Beyond this, a distinction must be made between aggregates of entities that cannot be counted at all (in the sense that the noun does not license a numeral, although there may of course be other ways of indicating number, e.g. *two pieces of furniture*), and aggregates of partially countable entities (as a result of coercion, e.g. *ten crew*); and within the former category, between cases in which *a number of* is acceptable (lexical plurals), and those in which the units are further backgrounded (e.g. non-count singular nouns). Moreover, aggregate nouns may denote pluralities of heterogeneous entities, but also of homogeneous ones (e.g. *foliage*, partly substantivised *(the) rich*). They may be denoted by singular-only or plural-only nouns (and corresponding NPs), or by partly substantivised adjectives.

The next stage is denoted by count nouns that carry a morphosyntactic plural, whether *-s* or ø. These forms differ from collective wholes and aggregates not just in carrying plurality through a morphosyntactic feature, rather than strictly at lexical level; but also, as a consequence, in the fact that the unit, rather than the plurality, is the starting point in the construal. These forms denote mere "groupings", which show cohesion (so that collective predicates are possible), but whose units can be counted, thus individuated quantitatively. This broad mode of construal further subdivides into two subcategories: groupings of non-differentiable entities (denoted by nouns with an optional ø plural morpheme), and groupings of fully differentiable entities (N-s, including cases such as *sheep*, for which the ø morpheme is compulsory).

A yet looser form of integration is obtained with conjoined NPs, which denote "sets of loosely connected elements". Because there is a noun in each coordinate,

the units do not have to be of the same kind; the plurality denoted by the whole of the conjoined NPs, though, exhibits cohesion. Trying to contribute to the debate raised in philosophy and formal semantics, the linguistic approach to pluralities of entities taken here leads us to conclude that conjoined NPs do not denote sets of sets, or singularities; neither do N-s. It suggests that what philosophy and formal semantics have tried to make out with these concepts is in fact the cohesion at work in any plurality. Cohesion is different from "collectiveness", as pointed out by Acquaviva (2008: 101) and confirmed here.

Plural reference was also found to be possible with NPs headed by a singular noun that denotes an individual, in combination with a quantifier that has a bound variable reading (e.g. *every child*). This, however, was termed a "bound variable singularity" rather than a plurality, because the units do not exhibit any cohesion (no collective predicates are possible: *every child met): the event is processed for one individual before it is reduplicated thanks to the bound variable quantifier.

The resulting Scale of Unit Integration for pluralities of entities (Figure 4) shows a gradual decrease in the degree of unit integration as we move downwards – the remarks on "construal" next to the labels highlight the main differences between the given type of plurality and the one above it. The Scale shows that an NP may denote a plurality as a result of its head (plurality at lexical level, whether for the whole meaning of the noun, or one sense, or one facet); an inflection on its head (morphosyntactic plural, though the study has suggested that it might be more complex than that, see also § 7.2.1 below); a (binominal) construction; or more to the margin, a determiner (quantifier in a bound variable reading). The lexical level (if N-s is excluded from the lexical level) carries specificities: it shows no looser types of unit integration than aggregates; and bounding does not carry the same properties as bounding in context (e.g. although *my parents* is contextually bounded, the whole does not take on non-additive properties).

The Scale of Unit Integration also brings out the specific place of collective nouns, for three reasons. They stand at the top of the Scale, being the lexical items that show the highest degree of integration of the units; along with taxons, they are the only type of lexical item that does not name the nature of the units, while integrating plurality at lexical level (e.g. soldiers *are* not an army); finally, there is no pressure for coercion or reanalysis from less integrated types of pluralities towards them.

Finally, the Scale shows the advantages of restricting the category of "collective nouns" to those that have a double layer of conceptualisation, rather than take "collective" as an umbrella term for anything that denotes a plurality of entities. In this latter scenario, it would be very difficult to find a suitable label for the category at the top of the Scale, all the more so as the label should reflect the proximity between what is denoted by, say, *archipelago* and *a chain of islands* (lexical level / binominal

'**collective wholes**' – forms: collective noun (and corresponding NPs, including binominals with a collective N1), e.g. *collection*; NP with collective reference through metonymy in discourse, but not itself a collective NP. – construal: double layer of conceptualisation: the whole denotes a 'group', and has some properties of its own.

'**taxons**' – form: count noun such as *breed* or *species* (and corresponding NPs). – construal: the whole has its own properties, but denotes a class, not a 'group'; the units are exemplars of the class.

'**aggregates of entities that cannot be counted**' – forms: uninflected plurals coerced from collective nouns and which do not license numerals; non-count singular nouns; partly substantivised adjectives of type 1; non-count singular nouns; and corresponding NPs (e.g. *furniture, the rich*)
– construal: no double layer of construal. Denote classes, with expected plurality of occurrence.

'**aggregates of entities which cannot be counted, but for which** *a number of* **is still possible**' – forms: lexical plurals, uninflected plurals coerced from collective nouns that do not license numerals.
– construal: still denote classes; license *a number of*, sometimes access to the parts of the units; but do not license numerals, so that the units are not fully isolatable.

'**aggregates of partially countable entities**' – forms: uninflected plurals coerced from collective nouns that license numerals (e.g. *(ten) crew*); partly substantivised adjectives of types 2 & 3; and corresponding NPs.
– construal: no free extraction of individuals and differentiation difficult, because the starting point is the plurality, not the unit; but license some numerals.

'**groupings of non-differentiable entities**' – form: NP headed by a count noun with an optional ø morpheme (e.g. *three elephant_*).
– construal: not qualitatively differentiable, but the units have salient individual boundaries, so that they are fully isolatable (true /count/ feature).

'**groupings of fully differentiable entities**' – form: NP headed by a count noun with a morphosyntactic plural -s (or compulsory ø morpheme) (e.g. cats, plural *sheep*), including reanalysed organised plurality constructions (e.g. *lots of students*).
– construal: the units are fully isolatable (/count/ feature) and may be easily differentiated qualitatively, though they are construed as being of the same kind.

'**sets of loosely connected elements**' – form: conjoined NPs (two or more coordinates)
– construal: the units are easily differentiable and do not have to be of the same kind; cohesion.

'**bound variable singularities**' – form: quantifier with a bound variable reading + count noun in the singular. Not truly a 'plurality'.
– construal: no cohesion: the plurality is indirect, as one individual is considered at a time.

Figure 4. Scale of Unit Integration for semantic pluralities of units (the dotted arrows indicate paths of coercion or reanalysis, for some of the nouns in the types concerned)

construction). In addition, N–s (e.g. *tables*) would have to be termed "collective NPs", which again would make the distinction between *tables* and *a chain of islands* difficult to make. Or one would have to say that in *a herd of cattle*, there are two collective nouns – in terms of conceptualisation, it seems less confusing to consider that the *plurality* is construed in two stages: a collective noun which is concerned with group level, and the aggregate noun *cattle* which indicates the nature of the

units. One further advantage of the terminology adopted here, it is hoped, is that it leaves room for future research into pluralities whose components are not units, such as particulate masses (e.g. *rice, sand*) and componentially-complex entities (e.g. *scaffolding*, *savings*). *Collective* would hardly allow this, thus losing the continuum between units, particles and prototypical parts.

7.2   Challenges for further research

7.2.1   The relation of morphosyntactic number to the lexical level

One important finding of the volume has been that the morphosyntactic plural is not (or not always) just a discourse feature. This was already suggested by Langacker (1991), who considers that the category denoted by *pebbles*, for instance, is distinct from that denoted by *pebble*. On several occasions, in this volume, a mere discourse-feature approach has been found to be unsatisfactory.

First, the boundary between lexical plurals and N-s has been found difficult to establish at times, in particular due to the existence of plural-mostly nouns (e.g. *noodles*, *toiletries*, *accessories*) and non-count uses of nouns with corresponding count stems of very similar meaning (e.g. *covers / cover/s*). This suggests that at lexical level, plural forms might be stored and have their own representation. Secondly, the notion of "hyperonym of plural classes" was put forward to account for the status of nouns such as *furniture*, *furnishings* or uninflected plural uses of *crew*-like nouns.

Langacker (1991) goes as far as to consider that N-s are mass nouns, like non-count nouns such as *furniture*. This appears as potentially too radical, as N-s have a /count/ feature – they license numerals – and reflect a different mode of construal (groupings of fully differentiable entities vs. aggregates). But further research is needed to understand the exact relationship(s) between singular, plural and base in the lexicon; conclusions might differ depending on the frequency of occurrence of the plural in discourse, and/or whether or not the noun is superordinate. This, in turn, may help researchers get a better understanding of the relative instability of number in lexical plurals that denote pluralities of entities, and of how exactly count/non-count recategorisations work.

Further research is also needed to understand the exact relationship between number and the /non-count/ feature. As was shown, a number of linguists suggest that non-count 'singulars' (e.g. *furniture*) do not carry number; number, to them, is number alternation. But the present study has shown that being singular-only, or plural-only, goes hand in hand with differences in construal, and that the nouns still

control number agreement in their targets. It is concluded that non-count nouns do have number, although they do not have number alternation. Further research is needed to modelise number in these cases in which it is imposed by the noun.

7.2.2 Other types of pluralities

The Scale of Unit Integration also calls for further research above it, to establish a broader Scale of Part Integration. Particulate masses would be of obvious interest: as mentioned in chapter 1 (§ 1.4.3.2), Goddard (2010: 140) distinguishes between "particulate substances with named minimal units", such as *sand* (made of grains) or *grass* (made of blades), and those whose minimal units that do not have names, such as *flour* or *powder*.

At the bottom end, extending the Scale would mean leaving semantic plurality, but it would be interesting to consider *inferences* of plurality. For example, even with juxtaposition, the very fact that two sentences follow each other triggers the inference that their contents must be somewhat related. For example, *John was home. Eileen went to the market* suggests that the speaker construes the two participants as part of the same set – perhaps they are a couple, or two friends of the speaker's, and so on. In comparison, in a clause such as *John helped Eileen down the stairs*, there are again two participants, yet the inference of plurality is construed differently.

Finally, pronouns would be of special interest, to understand the role of the semantic /plurality/ feature in categorisation when there is no lexical content. For instance, while personal and demonstrative pronouns carry number (e.g. *it/ they*), other types, such as possessives, do not; compound indefinites (e.g. *anyone*, *something*, *nobody*), like pro-NP *one*, do not have plural forms (*someones, *ones wouldn't like this); and singular pronominal (vs. determinative) *this/that* may not refer to a human, whereas plural *these/those* are not a problem. Such facts, when taken together in light of the /plurality/ feature, might find explanations.

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This monograph proposes a comparative approach to all the ways of denoting 'more than one' entity, from collective and aggregate nouns (with the first-ever typology), to count plurals, partly substantivised adjectives and conjoined NPs. This semantic feature approach to plurality, which cuts across number, the count/non-count distinction, and lexical/NP levels, reveals a very consistent Scale of Unit Integration, which establishes clear-cut boundaries for collective nouns, and accommodates cases such as *three elephant, cattle* or a *chain of islands*. The study also offers a refined understanding of aggregate nouns (a category nearly as large as that of collective nouns) and quantification in pseudo-partitives, develops Guillaume's notion of 'internal plurality', and proposes the innovative concept of 'hyperonyms of plural classes' (e.g. *furniture*). The Animacy Hierarchy is also found to be influential, beyond hybrid agreement. The book aims to be accessible to scholars of any theoretical background interested in these topics.