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Fabienne Toupin

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Animal Names in Contemporary English:

What is the Marking of Plural a Marker of ?

[...] *la linguistique sans diachronie et sans anthropologie culturelle se condamne à l'assoupissement théorique.*
(Culioli, 1999: 7).¹

Il y a donc un double déterminisme dans lequel, loin de s'exclure, les causes internes et externes se complètent ; le mot étant le résultat d'un impact, d'une pression de l'histoire sur le système.
(Guiraud, 1986: 18)

My focus in the next pages will be on those animal names which always or occasionally take the Ø suffix in the plural in Contemporary English.

What the 10th-century grammarian Ælfric wrote about a set of Latin verbs applies to them: *hi synd swa gehatene forðan ðe hi ne gað na swaswa oðre word on sumere stowe* (“they are thus called because they do not follow the same path as the other verbs at a certain place”). These “**nouns with irregular plural**” (Quirk *et al.*, 1985: 298), like all items that stray from the straight and narrow linguistic path, are of special interest to the linguist, who won't take irregularity for an answer but for a mere taxonomic label, as Quirk and his co-workers intended it to be.

I will try to show that these names constitute a lexical category in Guiraud's sense, that is, a non-arbitrary set of nouns with common features at the level both of the signified and of the signifier, and functioning, from a diachronic perspective, as a matrix enabling membership of the category to develop.

Support for my claims will be primarily linguistic, but information will also be derived from archeological, anthropological and artistic sources.

The corpus used comprises in part examples, quotations, etc., from the *Oxford English Dictionary*. These will be easily identifiable because the way their source is presented in the OED has been stuck to, with a date always

¹ Culioli, Antoine, 1999. *Pour une linguistique de l'énonciation : formalisation et opérations de repérage*. Paris and Gap: Ophrys.

coming first. For instance example (2) below is followed by the mention “(1958, WOLF *Dict. Painting* 41)”, an indication that it was found in the OED. The other examples are taken from various 20th-c. sources, whose list is to be found at the end of the bibliography.

Heavy insistence on methodological obstacles of all sorts, when precluding the resolution of problems, is also part and parcel of this paper. I wish to emphasize at the outset that the grammatical treatment of animal names in CE is a thorny issue that does not lend itself to any simple and straightforward explanation.

1. Zero-plural animal names in Contemporary English

1.1. Zero-plural nouns

It is essential first to delineate our field of enquiry, and therefore a necessary evil to start with some very basic considerations. Some of the following will seem to be labouring the obvious.

Syntactically, animal names are nouns, a significant number of which can switch between count and uncount use. They are treated as uncount when they refer to material (leather, fur, etc.):

- (1) One volume in old **sheep**, the other in **calf**. (1911, Tregaskis’ *Catal Bks.* N°708 53)
- (2) Modern painters’ brushes are in two general types: bristle, or coarse hair, usually that of the pig; and fine hair, made of **sable**, or so-called ‘camel hair’. (1958, WOLF *Dict. Painting* 41)

or to food:

- (3) Plutarch assures us, that Cato kept his whole family in health, by feeding them with **duck** whenever they threatened to be out of order. (1774, GOLDSMITH *Nat. Hist.*: VI. 111)
- (4) He went looking for **pheasant** because he was hungry. (*LDCE*: xxxii)

Yet even with respect to this well-known grammatical rule of English less trivial examples sometimes show up:

- (5) It [The nine-banded Armadillo] also eats **crayfish**, **amphibians**, **reptile**, and bird-eggs, and carrion. (*NAM*: 372)

Why do the three nouns in bold type behave differently, though all referring to food for the armadillo? *Amphibian* takes the *-s* inflection for plural, which puts it on a par with *bird-eggs*, while *crayfish* and *reptile* are treated as uncount, just like *carrion*. One could argue that *amphibian* is the name for a class of animals and that the intended meaning of *amphibians* is “different kinds of amphibian animals”, as opposed to *crayfish* which refers to a single genus (technically speaking). But then *reptile* too denotes a class of animals, and it is unclear why in this context reptiles should not be thought of as coming in various kinds, as

amphibians do. This apparent quirk of usage is probably due to the adjective > name conversion: *amphibian*, unlike *crayfish* and *reptile*, is originally an adjective.

Examples (1)-(4) (and (5) to some extent) illustrate a rule of English according to which animal names are treated as **uncount nouns**, i.e. morphologically invariable nouns. **Uncount nouns of this type** (*noms continus denses* in the current French terminology) **cannot be plural**. As such, they fall outside the scope of the present discussion.

When treated as count nouns, many animal names, actually the bulk of them, behave regularly with respect to the marking of plural, i.e. they take the *-s* inflection characteristic of the number system of CE:

- (6) She was seen one day sitting on a roof and talking to some **sparrows** who were just out of her reach. (*Animal Farm*: 29)

... * *talking to some sparrow* ...

Yet a subset of names conform to a different morphological pattern — they do not add *-s* in the plural and the latter form is exactly like the singular:

- (7) Bulls which had always been tractable suddenly turned savage, **sheep** broke down hedges and devoured the clover, cows kicked the pail over, hunters refused their fences and shot their riders on to the other side. (*Animal Farm*: 36)

... * *sheeps broke down hedges* ...

- (8) Biting flies and other insects can be a major problem for **Caribou** in certain areas. [...] Chief predators are humans and wolves, although Grizzly Bears, Wolverines, Lynx and golden eagles may take a few Caribou, particularly the young. (*NAM*: 845)

- (9) In the 19th century, many Elk were primarily plains animals and were shot by ranchers to reduce grazing competition with domestic livestock. (*NAM*: 829)

- (10) In the 15th century, millions of American Bison grazed from the Atlantic Ocean almost to the Pacific and from Mexico and Florida into Canada. (*NAM*: 853)

A necessary step is to consider these names within the larger framework of count nouns that do not carry the regular *-s* inflection in the plural, so as to assess how exceptional they are.

Zero plurals comprise lexemes other than animal names. I retain here the labels used or coined by Quirk *et al.*: some nationality nouns (ending in *-ese*), some quantitative nouns and nouns with equivocal number are also concerned (Quirk *et al.*, 1985: 308-9).

Four quantitative nouns, viz. *dozen*, *hundred*, *thousand* and *million*, have zero plural when premodified by any another quantifier (cf. *three hundred students*), except when an *of*-prepositional phrase follows ([*three*] *hundreds of students*).² Less common and semantically specialized quantitative nouns, viz. *brace*, *gross*, *head*, *hundredweight*, *yoke*, etc., are zero plurals provided their determiner is a cardinal numeral: compare *three hundredweight of coal* with *three balls of wool* for instance. On top of these, a handful of measures (e.g. *horsepower*, *hertz*, ...), units of weight (*stone*) or currency units (e.g. *quid* (British English slang), *yen*, ...) also take the zero inflection for plural.

Phonetically, some zero plurals have base forms ending in [s] or [z], thus raising a morphological problem of interpretation which causes native speakers to hesitate between singular or plural treatment: this is the case with the so-called nouns with equivocal number, whether the final segment is historically a genuine marker of plural (as in *dice* [dɑ:s]) or not (as in *species* ['spi:ʃi:z]); the same holds for zero-plural nationality nouns, for instance *Swiss* [swɪs] or *Vietnamese* [vi,etnə'mi:z].

With some lexemes it seems necessary to factor in both the oral form and the syntactic constraint to account for the plural form: in *five brace of pheasants* the determiner is a cardinal numeral and the head *brace* [breɪs] ends in [s]; the final segment in *Vietnamese* is [z] and the noun can be considered the result of an adjective-noun conversion which somehow retains the invariability feature of adjectives in CE.

These observations do not exhaust the question of zero plurals in CE, but they make it clear that this category is rather marginal in today's number classes.³ Numerically marginal, because the nationality nouns concerned are not likely to number more than 10, the quantitative nouns do not represent more than 16-odd items, and about 17 nouns with equivocal number are involved. Morpho-syntactically marginal, if we think of the quantitative nouns, because their special morphological behaviour is observable only under strict syntactic conditions. Besides, from a phonetic point of view, a significant number of zero plurals have a base form ending in [s] or [z], another feature which sets them apart from the majority of English nouns.

² This problem is also looked upon, at least by French linguists, as a case of noun > numeral conversion, and numerals being invariable, the phrase "zero plural" is then a misnomer.

³ For clarity's sake, what I mean here *is* indeed "zero plurals different from animal names".

1.2. Zero-plural animal names as compared with the other zero plurals

By contrast, zero-plural animal names (henceforth ZP animal names), defined as CE nouns that occasionally or always take the Ø plural inflection, probably amount to more than 80 (see the appended document).

One-tenth of this number have a base form ending in [s] or [z], viz. *grouse*, *hippopotamus*, *luc*, *lynx*, *moose*, *plai*, *rhinoceros* and *walrus*.⁴ But the following note, found in the OED sv. *grouse* — a noun of disputed origin, whose earliest instances date from the mid-16th c. — indicates that in this matter it is also necessary to take the history of the words into consideration: “It is uncertain whether the 16th c. form is a sing[ular] (used collect[ively]) or the plural of *grow.”

Indeed, in all languages displaying a morphological distinction between singular and plural, speakers have been known to sometimes evolve spurious singulars to match forms misinterpreted as plural. This is especially true of loanwords, because their foreign character further confuses morphological analysis. I would like to illustrate this with the noun *rhinoceros*:

- (11) And sa þai willid in-to a wod was full of wild bestis, **Rynoceros**, as I rede, þe romance þam callis. (a1400-50, *Alexander* 4133)
- (12) A beast all barred ouer with small plates somewhat like to **Renocero**. (1596, RALEIGH *Discov. Gviana* 61)
- (13) The forests are full of **Rhinocero**'s. (1680, MORDEN *Geog. Rect., Ganges Penins.* 412)
- (14) **Rhinoceroses** of the size of a large dog. (1753, HANWAY *Trav.* I. vii. xcvi. 440)
- (15) The remains of elephants and **rhinoceri** accompanied by marine vegetables. (1799, KIRWAN *Geol. Ess.* 68)

Rhinoceros was borrowed by English from late Latin (late L *rhinoceros*) and its earliest recorded instances go back to the 14th c. Over a time span of 400 years, 3 different plural forms show up — with what looks like a Ø inflection in (11), with a regular *-s* inflection in (13) and (14), and eventually with a Latin plural inflection *-i* in (15). Example (12) illustrates the process of backformation just mentioned, whereby the singular **renocero*/*rhinocero* was formed; (13), which postdates (12) by a century, displays the same spurious singular form, and the apostrophe shows uneasiness over the adequacy of adding a native plural inflection (*-s*) to a foreign base.

I don't think it is any accident if the 8 names considered here are all evolved from non-native nouns with a word-final sibilant:⁵

⁴ The noun *horse* is left out here for reasons that will be stated later (see footnote 19).

⁵ The origin of *rhinoceros* has already been dealt with.

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• *grouse* is of unknown origin for the OED, but according to Onions, could be referred either to a medieval Latin word or to a Welsh one;

• *hippopotamus* was borrowed twice, once from OF (OF *ypotame*) but the modern form is due to a later adoption from late Latin (late L *hippopotamus*);

• *luce* comes from OF *lus*, *luis*;

• *lynx* is from late Latin (late L *lynx*);

• *moose* comes from Narragansett *moos*;⁶

• *plaice* is another word of French origin: OF *plaiz/plais/plaiis*;

• *walrus* is a Dutch loan-word (Du *walrus/walros*).

Two other names have to be added to the list, *crayfish* and *partridge*. Their MnE base forms do not end with [s] or [z] but their original forms did (*original* referring to the form of the word when borrowed by English). Both words come from OF (OF *crevice* for *crayfish* and OF *perdriz/pertriz* for *partridge*). In the case of *crayfish*, a misinterpretation of the word as a compound of *fish*, under the influence of Southern ME where it was confounded with *vish*, « fish », written *viss* in Ayenbite, must also have played a crucial role in the name becoming a zero plural, *fish* being itself such a noun.

All in all, 10 ZP animal names can be singled out which are non-native and whose modern and/or etymological base forms end with [s] or [z]: *crayfish*, *grouse*, *hippopotamus*, *luce*, *lynx*, *moose*, *partridge*, *plaice*, *rhinoceros* and *walrus*.⁷ Paradoxically, this observation is both important and negligible. Important insofar as it might well account for a subset of ZP animal names in CE; but negligible because the subset in question comprises relatively few items, and above all because non-nativeness and oral form would have been insignificant in themselves if another major factor had not chanced to be at work in the history of English. This is the principal claim of this paper, and I will take the matter up in detail later.

My last remarks here have to do with syntax. When treated as count nouns, no specific syntactic conditions are required for ZP animal names not to take the *-s* inflection, if they can take it at all. But some environments seem to favour an *-s* suffix, others a \emptyset inflection.

⁶ Narragansett is a native American language.

⁷ All the figures given here and in the subsequent paragraphs are open to revision; other words could well be added to the list when further research is carried out in this field.

1.2.1. Environments that seem to favour an –s inflection

Examples (16) and (17) exhibit syntactically parallel constructions — *walrus* occurs as the semantic head of the NP subject of the main verb, and is preceded by a quantifying expression:

- (16) The last remnant of **walrus** did not leave us until the temperature had sunk below zero. (1856, KANE *Arctic Expl.* I. xiii. 140)
- (17) A number of **Pacific Walruses** do not migrate northward, instead passing the summer on Round Island in Bristol Bay, Alaska. (NAM: 725)

140 years or so separate (17) from (16) but strictly contemporaneous examples can be found:

- (18) In the enlarged countryside, wildlife bred freely. Hares multiplied; deer and **boar** were released into the woods from game farms; the urban ox returned to a healthier diet of bloodied, pulsing flesh. (England, England)
- (19) **Russian Wild Boars** were released in 1910 and 1912 on a North Carolina preserve near the Tennessee border. (NAM: 818)

with *boar* in (19) evidently standing for *wild boar* in view of the context (cf. *wildlife, woods, game farms*). Observation of the corpus tends to show that the difference in grammatical treatment of the nouns is due to the attributive adjective, whose semantic role is to denote specific rather than generic taxa (in technical terms). Put differently, reference to species rather than generic taxa would induce, where possible, treatment as regular plural.

1.2.2. Environments that seem to favour a Ø inflection

Apparently, animal names do not add –s but Ø when premodified by expressions like *a flock of, a herd of, etc.*:⁸

- (20) **A couey of Partridge.** (1579, E. K. Gloss. *Spenser's Sheph. Cal. Apr.* 118)
Comp.: I sende yowe by this bringer half a dossen parterrigs ... I sende owte my hawke this day to kyll yowe parterrige for super on Monday. (a1550, in Ellis *Orig. Lett.* Ser. III. III. 71)
- (21) **Shoals of maycрил.** (1789, MRS. PIOZZI *Journ. France* I. 2)
- (22) I have often seen **flocks of snipe** crossing the bay. (1845, COULTER *Adv. in Pacific* iii. 29)
Comp.: The Calcutta market is well supplied with snipes. (1827, JOHNSON *Ind. Field Sports* 36)
- (23) **A herd of** fourteen reindeer was seen. The horns of the entire band – for the hinds carry them as well as the stags – were still in velvet. (1908, *Blackw. Mag.* July 105/2)

⁸ In the whole of my corpus there is not a single occurrence of an expression of this type followed by a noun with an –s inflection.

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A different thing is **the absence of variation** in number, together with the use of the determiner Ø, which is the case when two or more nouns are coordinated, especially when the coordination is emphasized by a correlative such as *both ... and* or *neither ... nor* (Quirk *et al.*, 1985: 280):

- (24) They could discover in them [the woods] **neither Elephant nor Buffalo**.
(1731, MEDLEY *Kolben's Cape G. Hope* I. 79)

This syntactic device, the effect of which is to balance one noun against another noun of contrasting meaning (*retour à la notion* in the current French terminology), is attested in my corpus as early as the ME period:

- (25) His fadir slow **bath schep and net**. (a1300, *Cursor Mundi* 3019)

I have repeatedly observed that subject position favoured this tendency:

- (26) The frost is so hard that **woodcock and mallard** are driven from inland copses and marshes to the open springs. (1894, SKELTON *Table-t. Shirley* 64)

but other syntactic positions are found, such as object in (27) or prepositional phrase in (28):

- (27) The pond will moreouer keepe **Shote, Seale, Trought, and Sammon**, in seasonable plight, but not in their wonted reddish graine. (1602, CAREW *Cornwall* II. 105b)

- (28) In **woodcock and true snipe** the ear appears below and not behind the eye. (1872, COUES *N. Amer. Birds* 249)

Sometimes thorny cases turn up. While there can be no doubt that the form of the nouns in bold type in (29) is due to absence of variation in number, (30) could be a similar case or, equally probably, could illustrate the Ø plural suffix:

- (29) My days here are most enjoyably spent in identifying species of **bird and mammal and fish and reptile and insect** — almost none of which is well known to me. (*POM*: 439)

- (30) Wildlife may be spotted throughout the Poudre Canyon. **Bear, mountain lion, elk and deer** are found at all elevations. (*FC*: 27)

Apart from a handful of exceptions the exact list of which remains to be drawn (nouns like *cod, deer and sheep*), ZP animal names can always take the regular *-s* plural inflection. In other words, zero plural in these nouns is an option that speakers can go for, not a rule.

1.3. Zero-plural animal names : lists

1.3.1. The core list

Quirk *et al.* (1985: 307-8) provide a useful list of animal names in the form of a morphological continuum; it is reproduced below, with a shortened list in (i):

- (i) **Regular plural**, e.g.:
cow, eagle, monkey, etc.

(ii) Usually regular plural:

elk, crab, duck (zero only with the wild bird)

(iii) Both regular and zero plurals:

antelope, reindeer, fish, flounder, herring, shrimp, woodcock

(iv) Usually zero plural:

bison, grouse, quail, salmon, swine

(v) Always zero plural:

*sheep, deer, cod*⁹

Subsets (ii) to (v) yield a core list of 18 ZP animal names. Apart from morphological behaviour with respect to the marking of plural, these items can be observed to have some common features:

- They are common gender nouns (*noms épiciènes* in the French terminology); *duck* certainly can refer to a female fowl whose male is the drake, but its primary sense, according to the OED, is “a swimming bird of the genus *Anas*”.
- 9 of them (i.e. half of the total) are modern reflexes of OE words: *crab, deer, duck, elk, fish, herring, sheep, swine and woodcock*. 3 other names deserve attention: *reindeer* — which comes from ON, *shrimp* — which is obscurely related to MHG, MLG and ON, and *cod* — a word of uncertain origin but known only in English. If *cod-fish* means “bag-fish”, as some have conjectured (from the appearance of the fish), then it is definitely of OE origin. So all in all **12 names out of the 18 in the core list are of Germanic origin, and this is too high a proportion (approx. 67%) to be mere accident.**
- Apart from *sheep* and *swine*, the animals in question represent:
 - fowl (*duck, grouse, quail, woodcock*);
 - fishes (*cod, flounder, herring, salmon*) — *fish* being the name of the class, or shellfish (*crab, shrimp*);
 - cervids (*elk, reindeer*) — *deer* referring to the whole of that family, or other ruminant mammals of the ox family (*antelope, bison*) somehow felt to be close to deer, as is clear in the definition of *antelope* given by the OED: “the popular and literary name for the numerous species of the deer-like ruminant genus *Antilope*”.

The corresponding animal names are found in combinations of the *crab-fishing, duck-hunting* or *woodcock-shooting* type; sometimes verbal nouns are formed from the name, like *shrimping* “catching shrimps”, a back-formation dating from the mid-19th c.; such compounds as *herring-season* and *quail-time* designate

⁹ These 3 nouns do have an attested –s plural in MnE (as late as in 1890 for *sheep*, for instance) but not in CE.

culturally established divisions of the year, when the animals in question are killed in accordance with set hunting or fishing rules. In view of these lexical observations, I will refer to these animals as **game**, though this is not quite the regular meaning of the word. *Game* is normally restricted to “wild animals or birds such as are pursued, caught or killed in the chase” (definition of *game* in the OED). In this paper *game* will be used to describe animals that are either hunted, fished or shot.

Sheep and swine not being game animals, it is only natural that sheep and swine should occur in different combinations, of the *sheep-breeding* or *swine-dealing* type, and that there should exist no such thing as **sheep-* or *swine-season*.

Game is usually cooked and eaten, so **all the animals in question**, whether fish, flesh or fowl, **are articles of food, and some of them** (e.g. the woodcock) **are even greatly valued as such**. Sheep and swine, domesticated for centuries for their flesh (among other things) share this edible quality.

1.3.2. *The extended list*

Of the two features just mentioned, one regards the signifier (OE origin), the other the signified (game animals of edible quality). Operating with these features as criteria for eliciting further material,¹⁰ I have established an extended list of ZP animal names — first, by looking at MnE reflexes of OE animal names (very valuable OE lists being available in Barnaud, 2001, Roberts *et al.*, 2000, and Sauer, 1999) and then by looking up the names of well-known game animals in dictionaries of CE. Other names were incorporated into the list on a more accidental basis; these were nouns that came up with a Ø plural suffix in examples originally concerning other names. I retained all the names for which evidence of zero plural can be found in the MnE corpus.

The result is a list comprising 83 lexemes, appended to this text; on top of these there are 5 names (*crocodile*, *giraffe*, *hare*, *pidgeon*, *swordfish*), of which I found no MnE occurrence with a Ø plural inflection,¹¹ but which are to be added to the list on account of their being labelled as “Wn1” or “Wn2” by the *Longman Dictionary of Contemporary English*:¹²

[Wn1] = nouns that usually change (add -s) in the plural, but sometimes (as with animals when talking about hunting) have a plural that is the same as the singular.

Examples: There were three **pheasants** for sale.

He went looking for **pheasant** because he was hungry.

¹⁰ The gender feature is not taken into consideration here because most animal names are common gender nouns (this criterion is irrelevant).

¹¹ The lack of MnE evidence is probably ascribable to my corpus being too restricted.

¹² Only *pheasant* is labelled “Wn2”.

[Wn2] = nouns that usually or often do not change (add -s) in the plural but can do so (as when talking about different kinds of animal, esp. fish, with the same name, or about insects or other small animals which cause disease or damage).

Examples: He caught five **salmon**.

The Atlantic and Pacific **salmons** are closely related.

(LDCE: xxxii)

The extended list is by no means exhaustive, and there are several reasons for this. First, making such an inventory is a full-time job in itself (if it is feasible at all, which I begin to doubt in view of the difficulties — see below); time being short, I had to draw the line somewhere, rather arbitrarily, and for this reason alone my list can't be exhaustive.

Then, I have come across serious methodological problems that preclude at the moment any possibility of exhaustiveness. I list the main ones below, inserting my own answers (provisional answers), for what they are worth:

- What should we do with obsolete zero-plural nouns yet attested in MnE (e.g. *neten*)?

[I chose to count them in.]

- Is only Standard English to be taken into consideration? What with dialectal forms like *widge*? To strike off dialectal forms is not satisfying, when they are so numerous; but to include them raises the problem of the amount of available data in written form.

[I stuck to Standard English.]

- Some animals can be referred to by different names, for example: *flounder/fluke*, *walrus/sea-horse/morse/rosmarine* (the latter being obsolete). If three such synonyms all happened to be zero-plurals, should they constitute as many distinct entries in the list?

[I think they should, because this is a linguistic count, based on linguistic criteria, regardless of how many referents are involved.]

- Along the same lines, some animal names have a diminutive form (for instance, *pickrel* is the diminutive of *pike*). If the diminutive of a ZP animal name was a zero-plural too, should it constitute a distinct entry in the list?

[I do not think they should; since a diminutive proper is derived from the same root as the non-diminutive form this would result in double count of the same etymological form.]

- Compounds having *fish* or *deer* as a second element create much of a problem: for instance, is *cod-fish* to be counted in alongside *cod*? *Cod* is a ZP animal name, and so is *cod-fish*, but for a specific reason: its second element, *fish*, is itself a ZP animal name.

[In such cases, I adopted a somewhat complicated solution (I can see no other at the moment): I ignored compounds of the cod-fish type, taking only

cod into consideration, but included those of the swordfish type (sword, as opposed to cod, is not a name for fish), together with those of the starfish type, that is, compounds that refer to animals that are not fish.]

Deer, as we have seen, designates the family Cervidae and just as the codfish is a kind of fish, the roe deer is a kind of deer (etc.). Again, should we have (and count) two separate entries for such names, one for *roe* and another for *roe deer*?

[I applied here the same policy: I ignored compounds of the roe deer type (roe being a free morpheme with exactly the same meaning as roe deer), but included those of the musk deer type (musk not being a name for deer). Reindeer is a more thorny case: in CE the compound is much more usual than the simple name, which has however been attested in English ever since the OE period. (31) is from the account of Norway obtained by Ælfred from Ohthere:

(31) He hæfde tamra deora unbebohtra syx hund. Ða deor hi hatað hranas; þara wæron syx stælhranas. (c893, K. ÆLFRED Oros. I. i. 18)

He had six hundred of tame deer unbought. These deer they call reins; six of these were decoy-reindeers.])

- Some animal names occur only once in the MnE corpus as zero-plural forms; should these be counted in or not? It is easy to realize the consequence, in terms of count, of a high incidence of *hapax legomena*.

[Given the relative paucity of my corpus, considerations of precaution led me to include such names in the inventory. If other examples do not turn up with future investigation, it will be sensible to strike them off. For instance, my corpus contains only one instance of zebra and sable not adding –s in the plural (while wildebeest is rather well documented as a plural form):

(32) Great herds of **zebra**, **wildebeest**, and **sable**, stood fearlessly gazing at us. (1929, REITZ *Commando* 129)

In (32) it could very well be that the expression “great herds of” is responsible for the form of the following nouns (see § 1.2.2.).

Generally speaking, aspects of word-frequency will have to be held in mind and all hapax legomena to be identified.]

The questions just raised are all but trivial. The kind of answers that one comes up with can significantly alter the count of ZP animal names.

If we now consider the contents of the extended list, the proportion of items of Germanic origin is not significantly altered in comparison with the core list (more than 1 noun out of 2 correspond to this description), and the different names, irrespective of their origin, are semantically distributed as follows:

– 2 animal names (*greenfly* and *hookworm*) stand out from the rest as designating insects that cause disease or damage.

– 2 names (*horse* and *neat/neten*) refer to domestic animals (and belong with *sheep* and *swine* found in the core list);

– all the other names are those of birds, fish or mammals which are game animals with various degrees of typicalness for a speaker of British English.¹³ If for instance *snipe*, *shell-fish*, *pike* and *trout* pose no particular problem:

(33) The delighted pointer would dash forward to the well-known 'bottoms' in eager expectancy of ducks and **snipe**. (1842, LOVER *Handy Andy* 1)

(34) **Pike** and **trout** are to be had in the lochs. (1875, MCILWRAITH *Guide Wigtownshire* 24)

(35) A happy hunting-ground for **shell-fish** gatherers. (1896, LAMB *Ann. Ayrshire Parish* i. 21)

other animals can be considered game in an Asian or African context for example, with reference to safaris:

(36) ... crashing through the jungle after **tiger** with varying success. (1882, CRAWFORD *Mr. Isaacs* x)

(37) a- He shot several **lion**. (LDCE: xxxii)

b- *Plenty of gazelles, wild boars, and lions for the chase.* (1851, LAYARD *Pop. Acc. Discov. Nineveh* xiii 352)

or again in a North American context:

(38) **Elk** once ranged through most of what is now the U.S. and southern Canada, but their number dwindled as settlements and farming took over their habitats and also as a result of hunting, both for the market and for subsistence. (NAM: 829)

(39) Hunting **Black Bears** is a popular sport in some areas, both for the flesh (which must be well cooked because of trichinosis) and the hides, used for rugs. (NAM: 706)

Linguistic appearances seem to be telling of a lexical category, in Guiraud's sense:

Il est possible, comme le veut la sémantique structurale, qu'il y ait, en français, un système de la spatialité qui oppose « haut » / « bas », « long » / « large », « horizontal » / « vertical », etc., mais il s'agit d'un système logique et non lexical car ces oppositions ne sont pas manifestées sur le plan de la forme signifiante. [...]

Sous le nom de catégorie étymologique ou lexicale — les deux notions se confondent [...], le système fonctionnant à la fois en synchronie et en diachronie —, on entend ici l'ensemble des mots qui présentent des caractères sémiques (signifiés) et morphologiques (signifiants) communs. (Guiraud, 1986: 20)

Synchronically, the nouns examined here display common features at the level both of the signified (game animals which are, very often too, articles of food) and of the signifier (zero plurals). But how does the system work from a

¹³ See § 1.3.1. for the kind of linguistic (lexical) evidence on which the assessment of “gameness” is based.

diachronic point of view? This analysis cannot be complete, in Guiraud's terms, unless it incorporates the historical dimension into the picture.

2. From the list to the lexical category

The most obvious way of accounting for the existence in Contemporary English of a set of ZP animal names is to argue for grammatical inheritance from OE. I would like to examine how much of an explanation this argument is.

OE nouns inflected for plural in several different ways: zero plural was one such way (exemplified in Mossé's "Tableau des Paradigmes" by the word *word*). The general idea is that the MnE plural form of *swine* is *swine* because OE *swin* took the <Ø> plural suffix (in accordance with the *word* pattern),¹⁴ that *ox* takes <-en> (*oxen*) from OE <-an>, that *hawk* takes <-s> (*hawks*) from OE <-as>, or again that *goose* signals plural number with a change of vowel (*geese*) because in OE mutated plural was already the rule for this word.

According to Mossé (1945: 66) the OE nouns that inflected for plural by taking the <Ø> suffix were a category of neuter nouns comprising:

- a certain number of disyllables, such as *bodig* « body », *gamen* « game », *hunig* « honey », *wæter* « water », etc.;
- numerous monosyllables with a long syllable:¹⁵ *ban* « bone », *folc* « folk », *gear* « année », *hus* « house », *lif* « life », *nest* « nest », *sweord* « sword », *tol*, « tool », etc.

Among the latter four animal names are mentioned by Mossé, viz.

- *deor* « wild beast » > MnE *deer*
- *hors* « horse » > MnE *horse*
- *neat* « an ox or a cow, cattle, beast, animal » > MnE *neat* (also attested as *niten* [/nieten/nyten/neaten] > MnE *neten* [obs.]
- *swin* « pig » > MnE *swine*

but investigation based on Barnaud, 2001, and Roberts *et al.*, 2000, has made it possible to add other neuter nouns to the list:

- *floc* « flounder, fluke » > MnE *fluke*
- *sceap* « sheep » > MnE *sheep*
- *weorf* « young ass » > MnE —
- *wicg* « steed » > MnE *widge* (dial. or obs.).

These could possibly be included too:

- *ac-weorn* « squirrel » > MnE *aquerne* (obs.)
- *fagc/fagc* « plaice, loach » > MnE —

¹⁴ Here *plural suffix* is short for nominative and accusative plural suffix.

¹⁵ A long syllable in OE is a syllable whose nucleus is a long vowel or a short vowel followed by more than one consonant (Mossé, 1945: 57).

- *fifel* « sea-monster » > MnE —
- *fugel-timber* « young bird » > MnE —
- *sceadd* « shad » > MnE *shad*
- *scric/screc* « thrush » > MnE *shrike*
- *truht* « trout » > MnE *trout*.¹⁶

Here again, methodological difficulties arise, due in part to the fragmentary character of the OE corpus, and in part to the fact that some animal names appear only in glossed texts or glossaries — such as the Epinal-Erfurt Glossary, one of the earliest witnesses for Anglo-Saxon, which lists about 114 animal names (cf. Sauer, 1999).¹⁷

I think any explanation of the modern category of ZP animal names in terms of grammatical inheritance from OE is flawed, first because such names as *bar* (MnE *bear*) or *fisc* (MnE *fish*) used to inflect like *stan*, taking the <-as> plural suffix, but are attested as early as ME as zero-plurals:

(40) Ech man is efned to þe deore þe he nimeð after geres [...] sum **bere**, sum leun. (c1200, *Trin. Coll. Hom.* 211)

(41) Foghul and **fiche**, grett thing and small. (a1300 *Cursor Mundi* (Cott.) 9395)

Then, the main flaw in that explanation, in my eyes, is that it does not say why these animal names resisted regularization, defined as a process by which one declension attracts all the other patterns to itself. In the course of the ME period, the *stan* pattern attracted all the other patterns to itself, and the original variety of inflections was eventually reduced to one suffix: <-s/-es>, from OE <-as>. Such was the influence of the process that numerous nouns were regularized, with the result that today very few plural forms bear testimony to OE <-an> (cf. *oxen*) or to the OE mutated plural (cf. *geese*, *mice*, *lice*). In the face of sweeping changes, not only did ZP animal names stand their ground (i.e. resist regularization),¹⁸ but in time they also came to constitute a fully-fledged

¹⁶ *Ac-weorn* is neuter in Bosworth's dictionary but a masculine n. in Hall's; where *facg* is concerned, Bosworth does not present neuter gender as a certainty; *fifel* is neuter or masculine in Bosworth's dictionary but a neuter n. in Hall's; *fugel-timber* is a neuter n. but is a 4-syllable word; *sceadd* is masculine for Hall but Bosworth gives no indication as to gender, and neither do both dictionaries for the last two nouns, *scric* and *truht*.

¹⁷ Such names are flagged **g** in the *Thesaurus of OE* (Roberts *et al.*, 2000), a very convenient device and useful reminder of the difficulties presented by the OE corpus.

¹⁸ The following OE zero plurals are still extant in standard MnE: *deer*, *fluke*, *horse*, *neat/neten*, *shad*, *sheep*, *shrike*, *swine* and *trout*. All but at least 3 have remained zero plurals. I have no linguistic evidence in my corpus of *fluke* and *shrike* still being zero plurals. The plural form *horse*, according to the OED, was in general use till the 17th c. and still frequent dialectically; but *horses* is found as early as the 13th c. (evidence in Layamon), and its use increased till in the 17th c. it became the regular plural in the literary language. *Horse* sometimes occurs as the collective form and *horses* as the individual plural (hence the retention of *horse* in military language meaning “horse soldiers”).

category attracting newcomers to English (Italian, Congolese, Narragansett, ... loan-words) with what looks like magnetic appeal.

It should be clear by now that if the theory of direct inheritance from OE has to be discarded, it is as a gross simplification that does not account for the category of ZP animal names developing by going against the historical tide. But that OE, the Anglo-Saxon language reflecting the culture of Anglo-Saxon England, is a central element in the theory to be built up, I do not doubt for a moment. Commenting above on the proportion in the core list of nouns of Germanic origin (about 67%), I had already remarked that such high incidence could be no mere accident.

My claim in what follows is that the grammatical difference between ZP animal names and the other animal names provides a clue to a difference in conceptualization of animals that is deeply rooted in AS, not to say Germanic, culture.¹⁹

III. A clue to a difference in conceptualization

3.1. Where Anglo-Saxon culture comes in

It is difficult for Anglo-Saxon England to hold secrets for modern archeology. By analysing animal bone recovered from AS settlements, archeologists can tell us about the husbandry practices, kill-patterns and meat consumption habits of the Anglo-Saxons:

The evidence recovered from excavations emphasises that the landscape was fully utilised by the inhabitants of farms, or groups of farms, dispersed across the landscape. The extent of utilisation is exemplified by the settlement and cemetery excavated on a hilltop overlooking the English Channel at Bishopstone, Sussex (Bell, 1977). [...]. **In the pastures stood sheep, cattle and a few horses and roaming more freely were geese, fowl and cats.** [...] The food produced in this way [reference to crops of barley & various weeds] was supplemented by **marine resources: mussels, limpets and periwinkles gathered on the foreshore, conger eel from the lower shore and whiting taken from the sea;** nets were made on the farm. The animals not only provided dairy products, meat, leather and wool for clothing; bone was used to make such things as combs, weaving tools and netting needles. **In nearby woodland pigs were reared, and red and roe deer were hunted.** (Arnold, 1988: 33; my emphasis)

Though only part of the whole diet is visible archeologically, this picture is relatively reliable — what little variation there is between settlements can be seen as the result of local environment, social or cultural differences, or is due to the recovery technique used in excavating (see Arnold, 1988: 33).

¹⁹ The problem here is that there exists no written trace of the languages historically preceding — and eventually giving rise to — OE, namely Common Germanic and West Germanic, and the kind of conceptualization I want to focus on has to be supported by linguistic evidence. “I am not saying that linguistic evidence is the only reliable guide to human conceptualization in general and to human categorization in particular. There are, of course, many other types of ethnographic evidence that anthropologists have traditionally relied on. But linguistic evidence is particularly revealing.” (Wierzbicka, 1996: 358)

This picture of subsistence agriculture in AS England seems to lend some weight to Leach's argument (1964: 44) that the inhabitants of today's England see their animals as belonging to one of four categories:

- those which are closest to human beings — house animals, or pets, and as such are always inedible;
- those which are tame but not very close — farm animals; they are not edible in sexually intact form, but only if castrated or immature;
- fields animals, or game, toward which we are alternatively friendly and hostile: game animals live under human protection but are killed at special seasons of the year, in accordance with set hunting rituals, being edible in sexually intact form.
- remote wild animals, which are not subject to human control and not edible.

As an anthropologist, Leach establishes a correspondence between the categories of edibility and those of sexual accessibility, noting that modern anthropology has accumulated comparative data pointing to a universal tendency to make ritual and verbal associations between eating and sexual intercourse. The correspondence between people and animals can thus be summed up (summary based on Leach, 1964: 44):

Kin (incest prohibition)	↔	Pet animals (not edible)
Kin but not very close parents (marriage prohibition sometimes coupled with premarital sex relations)		Farm animals (castration coupled with edibility)
Strangers, neighbours, etc. (marriage alliance, friend/enemy ambiguity)		Game animals (edible in sexually intact form) (alternation between friendship & hostility)
Remote strangers (no sex relations)		Remote wild animals (not edible)

Leach claims that some animals are the focus of ritual attitudes (implying taboo) whereas others are not. The occurrence of taboo is indicated not only by metaphysical associations of the sort just described, but also by the various types and intensities of killing and eating restrictions, ritual performance, or again by such linguistic evidence as verbal abuse, the intrusion of euphemism, etc.

In that respect game animals form an intermediate or **ambiguous category of tame/wild creatures** which is heavily taboo-loaded:

- They are normally protected for part of the year and killed at set seasons, in accordance with set hunting rituals.
- The example of the fox gives a good idea of how certain rituals are surrounded by taboo: “The intensity of feeling aroused by these

performances almost baffles the imagination. [...] We find, for example, as commonly occurs in other societies in analogous contexts, that **the sacredness of the situation is marked by language inversions, the use of special terms for familiar objects, and so on.**" (Leach, 1964: 52; my emphasis).

The linguistic aspects of fox-hunting are relevant to the present discussion and I would like to dwell on some of these, as mentioned by Leach: foxes are hunted by packs of dogs and, at the end of the ritual killing, the fox's head and tail are cut off, to be preserved as trophies. None of this may be expressed in plain language: the fox is spoken of as a *dog*, the dogs themselves being referred to as *hounds*, the fox's head as a *mask*, the tail as a *brush*, etc. "It is considered highly improper to use any other words for these things." (Leach, 1964: 52)

- Game animals are usually edible and when eaten they are in sexually intact form.
- They are culturally associated with the people who are not kin (but neighbours, friends or even potential enemies), a category in which one ordinarily expects to find a partner.

The theory I propose is that **the Contemporary English category of ZP animal names is a reminiscence of the psychological salience of game animals in Anglo-Saxon culture**, originating not only in their being seen as a source of food and life, but also in their being the focus of ritual attitudes, as has just been explained. Put differently, **the marking of plural in these nouns is a linguistic trace of the long-standing cultural status of their referents as a taboo-loaded category of animals.**

That linguistic treatment should reflect cultural attitudes and values is not in itself surprising. What does come as a surprise is the intensity of the taboo value spoken of here: it is such that the category of ZP animal names resisted the powerful tide of regularization, developed by going against the historical trend and was transmitted down to the present-day.

It will be remembered that 4 nouns out of the 80-odd ZP animal names refer to domestic animals: *horse*, *neat/neten*, *sheep* and *swine*. If we leave out *neat*, now obsolete and supplanted by *cattle*, these names are still in current use in CE, but one of them, *horse*, is no longer a zero plural (see footnote 19). This, I think, is support for my analysis, because horses were never considered as typically edible animals in England. Archeologists tell us that in AS rural England horseflesh was less commonly eaten than in earlier periods and on contemporary settlements on the Continent; horses' late killing age indicates that they were used for riding and as pack-animals rather than for meat (Arnold, 1998: 35). This characteristic opposes them strongly to sheep and pigs, which

were, alongside cattle, the commonest and economically most important farm animals. Sheep were multipurpose animals (kept for milk, meat, manure and wool), and pigs were an important source of food and fat (Lapidge, 1999: 39).

That horses have never been conceptualized as a proper source of food in Insular culture is also illustrated by the following two quotations:

(42) Oftymes the poure peple ete also the houndes and eke hors and cattes. (1480, CAXTON *Chron. Eng.* clxxxix. 167)

(43) They were driuen to eat their own horsse. (1584, POWEL *Lloyd's Cambria* 41)

If indeed [\pm edibility], as connected with ritual attitudes and taboo-loaded values, is a crucial factor that determined how animals were categorized in AS culture (and still are), then these observations lend further support to the theory.

This leaves us with two unsolved problems: first, I am still puzzling over the question of why two animal names in the extended list, *greenfly* and *hookworm*, refer to insects. The only discernible link with the other animals is that some game animal names can also designate insects, usually of the vermin type (noxious, parasitic insects). *Silver-fish*, in one of its senses, is an insect (a bristletail or springtail), and so is *crab* (when short for *crab-louse*); *plaice* and *fluke* — a dialectal variant of *flounder* — refer to a fish and a parasitic worm (etc.):

(44) Flukes or plaice, as they are indifferently called, from the resemblance they bear, are found in the biliary ducts, caused by the sheep being placed on wet fresh-water submerged meadows. (1896, Daily News 26 May 6/4)

It is significant that the insect or worm is always so named from its resemblance to the game animal, and not the other way round. So “vermin” might be a historical outgrowth of the category “game”.²⁰ Besides, vermin comprises not only insects but all sorts of mammals and birds injurious to game or crops. Leach takes the example of rabbits and pigeons, which are classified as pests (i.e. inedible vermin) when they attack crops, but may also be considered as game and then become edible (1964: 45). As the product of the ambiguous category “game” (tame/wild animals), “vermin” is itself an ambiguous category (noxious/harmless creatures), and as such bound to be taboo-loaded if we follow Leach, 1964.²¹

The second problem concerns *osprey*, which unlike the other ZP bird names does not refer to a game bird but to a predatory bird. The only clue available at the moment is that the predatory bird also happened to be of high

²⁰ This seems to be further supported by the fact that *game* applies jocularly to vermin — an example is cited in the OED, sv. *game*, § 11c.

²¹ In this paragraph *category* is used in its non-technical sense, it is not to be understood as a *lexical category*.

symbolic significance in AS culture. Well-known for instance is the custom among the Germanic peoples of using animal names (or combinations of animal names) as symbolic personal names; frequent combinations were *eagle + boar*, *eagle + boar + wolf*, *eagle + serpent*, which illustrates the symbolic importance of the predatory bird.

Predatory birds, together with serpents, boars, stags, are the identifiable animals occurring most frequently in the pagan art of AS England (fish feature quite often too). Hines, 1997 and Speake, 1980, deal with AS animal art and its Germanic background, and both underline how much the various animal motifs were imbued with religious, talismanic or amuletic significance, and intimately bound up with the cults and beliefs of the Germanic peoples (for instance, the eagle and the raven were the cult-birds of Odin/Woden). So deeply rooted in AS culture was such symbolism that the pagan symbolic functions were later re-interpreted as Christian ones by the church, a deliberate policy of subversion meant to extend the control and authority of the church (over the Anglo-Saxons, later over the Viking invaders) and best described by Carola Hicks:

Animal ornament was deeply rooted in the imagery of various regional groups of people in the British Isles [...]. The policy of subverting the physical manifestations of former beliefs had been formulated from the time of the first missions. Once it had been established that animal designs formed an element of continuity overriding the changes of belief, they became the canon, instead of constituting a threat to it. (Hicks, 1993: 272)

But then, if the predatory bird was of symbolic significance in AS culture, one would expect the complex of feelings and attitudes surrounding it to be linguistically reflected not only in *osprey*, but also in *eagle*, *hawk*, *raven*, etc., which is not the case.

Art history may have even more disconcerting data in store for the linguist. We observed in § 1.3.1. that, apart from *sheep* and *swine*, the animals in the core list represent birds, fishes and ruminant mammals of the ox or deer family. It is interesting to relate this to a suggestion by C. Hicks that the three creatures, birds, fish and stag, depicted on the Lullingstone bowl may be symbolic of the three elements of air, water and earth (Hicks, 1993: 28-9). It seems to me that G. Speake says pretty much the same when he observes that “the symbolic significance of the three creatures [bird, boar and serpent] may also relate to the elements they inhabit. As an inhabitant of the sky the bird is appropriate as a solar symbol; the boar as an inhabitant of the earth would be appropriate linked to an earth deity.” (Speake, 1980: 92). It is not necessary to stress how typical a game animal the boar is. These suggestions, made independently by historians of art not concerned with linguistic questions, are based on the idea that some

animals (whose names happen to be zero plurals)²² were taxa of special significance in the culture of AS England. My own central claim is based on that very idea.

Although the preceding reflections — in connection with vermin, predatory birds and the three elements of air, water and earth — are mere speculation, they seem to make some sense. How relevant they are from a linguistic point of view is yet to be assessed.

3.2. *Constitution of the modern category of ZP animal names*

From the ME period on, the lexical category of ZP animal names gradually built up. There are certainly two ways in which the category developed.

First, the logical extension of the category became larger. Loan-words from OF, and later from Italian, Latin, Congolese, Narragansett, etc., provided that their signifier corresponded to the semantic description « game animals of edible quality », were aggregated into the original category, in accordance with P. Guiraud's central concept of **matrix**:

L'étymologie a été jusqu'à présent essentiellement externe: la chose tire son nom de son aspect, de sa fonction, de sa place au sein d'une culture; et ceci n'est que trop évident. Mais on montre, en même temps, que cette nomination est fondée sur une matrice qui fonctionne au sein du système de la langue: le marcassin est ainsi nommé parce qu'il est « marqué » (caractère externe), mais aussi parce qu'il existe en français un modèle d'après lequel de nombreux tachetés tirent leur nom de ce caractère. (Guiraud, 1986: 18)

Then, the logical comprehension of the category evolved too. I believe this aspect is much more recent and less important from a historical point of view. “Game” is a concept which implies a relationship between animals and human beings as hunters or fishers. According to the *Cambridge International Dictionary of English*, another (extralinguistic) relationship, that between animals and human beings as scientists or nature lovers, is subject to the same (linguistic) treatment. They give the following example:²³

(45) Ngorongoro Crater is a wildlife range for **wildebeest, gazelle and zebra**.
(*CIDE*: 1086)

I would like to add a quotation from an American guide which concerns the mountain lion, and is particularly illustrative of the ambiguous status of some animals as game or objects of observation: “Radio-tracking is being used to study the behavior of **Mountain Lions** in Florida, and an office has been

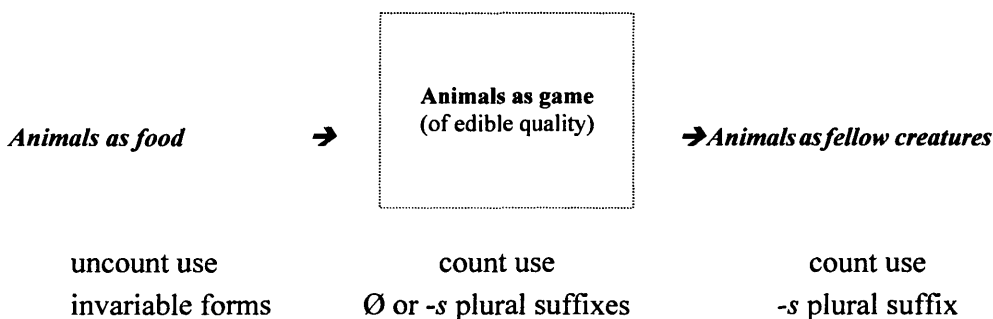
²² Except the serpent in the quotation from Speake, 1980, but the serpent has never been considered edible in England.

²³ Is some analogy at work here, if only unconsciously, between animals as prey for hunters and animals as prey for harmless observers? *Safari* is now defined as an expedition for **hunting or observing** wild animals: “a journey; a cross-country expedition, often lasting days or weeks, orig. in E. Africa and on foot, especially for hunting; now often with motorized vehicles, for tourism, adventure, or scientific investigation” (definition of *safari* in the OED).

established to investigate reports of sightings in the southern Appalachians. [...] Currently it [i.e. the Mountain Lion] is fully protected where rare (such as the eastern U.S.) and classified as a game animal where abundant.” (NAM: 794)

3.3. Animal reality as categorized by the English language

Grammatical treatment of animal names in English reflects how the extralinguistic world is broken up into culturally agreed-upon sections.



Conclusion

The lexical category of ZP animal names is somewhat reminiscent of what is called a notional domain in the conceptual framework known as the *Théorie des Opérations Enonciatives*, developed in France by A. Culioli. The comparison will sound unorthodox to those who work within this framework, but I would like to elaborate on it a little bit. (For lack of place I take here the technical definition of notion for granted.)²⁴

A notional domain structures the class of occurrences of a given notion. It is endowed with an **organizing centre** (i.e. a prototypical occurrence). I suggest that the “organizing centre” of our category, constituted by the complex bundle of linguistic properties associated with the prototype, could be *hare*. It is a common gender noun, monosyllabic, of OE origin, it alternates between regular and zero plural, males are *bucks* and females are *does* (properties concerning the signifier); it is a game animal of edible quality (properties relating to the signified).

A notional domain is also endowed with an **attracting centre**, that is, an imaginery occurrence having the constituent properties of the notion in the highest possible degree. I suggest that the “attracting centre” of our category

²⁴ An introduction to this school of analysis is available in English: Bouscaren, Janine, *et al.*, 1992. *Introduction to a Linguistic Grammar of English: an Utterer-Centered Approach*. Paris and Gap: Ophrys. The technical definition of notion is to be found on pp. 153-4.

could be *woodcock*. The woodcock is not merely edible, it is highly esteemed as an article of food.

A notional domain can be represented as comprising a gradient, from center outward, and the category discussed here undeniably comprises one too, for it includes members obviously closer to the boundary of the domain than to the organizing centre: elephants and rhinoceroses are game animals, but normally not conceived as articles of food, despite amusing testimony to the contrary:

- (46) The remains of elephants and rhinoceri accompanied by marine vegetables.
(1799, KIRWAN Geol. Ess. 68)

Sheep are edible but not game, osprey are neither one nor the other (etc.).

For this reason, the lexical category of ZP animal names is a fuzzy category. Fringe variation, I suspect, is almost infinite, because it is impossible to rule out that the creatures that are not intrinsically game animals may be considered game by a potential speaker, given the appropriate situation. In the example below, a 17th-c. American text, squirrels are described as game (the name appears as a plural form with regular *-s*):

- (47) Euery day they are abroad after squirrells, partridges, turkies, deere, and the like game. (1634, Relat. Ld. Baltimore's Plant. 16)

Hapax legomena are the linguistic reflection of this fuzziness. So, maybe, the very idea of an exhaustive inventory of ZP animal names in CE is meaningless. What is not would be to observe the other Germanic languages, past and present, with respect to the plural form of animal names.

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Animal Names : the Marking of Plural

CIDE (Cambridge International Dictionary of English)

FC (It's a Great Day to Be in Fort Collins! The Official Guide for Visitors, 2001)

LDCE (Longman Dictionary of Contemporary English)

NAM (National Audubon Society Field Guide to North American Mammals)

OED (Oxford English Dictionary)

RMNP (Rocky Mountain National Park Magazine, 2001)

Abbreviations

AF = Anglo-French

AS = Anglo-Saxon

c. = century

CE = Contemporary English

Du = Dutch

It Italian

L = Latin

ME = Middle English

MHG = Middle High German

MLG = Middle Low German

MnE = Modern English

n. = noun

OE = Old English

OF = Old French

ON = Old Norse

Scn = Scandinavian

Sp = Spanish

Appendix: the extended list of ZP animal names in Contemporary English.

Name	Translation	Etymology
<i>antelope</i>	antilope	OF
<i>bear</i>	ours	OE
<i>barking-deer</i>	muntjac	OE
<i>bighorn</i>	mouflon	OE or ON for <i>horn</i> (?); ON for <i>big</i>
<i>bison</i>	bison	L
<i>boar</i>	sanglier	OE
<i>bream</i>	brème	F
<i>buffalo</i>	buffle; (US) bison	It
<i>caribou</i>	caribou	probably of native American origin
<i>carp</i>	carpe	OF
<i>catfish</i>	poisson-chat	OE and ONF
<i>cod</i>	morue	of uncertain origin; word known only in English
<i>coot</i>	foulque	LG word whose earlier history is unknown
<i>crab</i>	crabe	OE
<i>crake</i>	râle	ON
<i>crayfish</i>	écrevisse [eau douce] langouste [eau salée]	OF
<i>deer</i>	cerf	OE
<i>drake</i>	canard (mâle)	West Germanic root of obscure origin
<i>duck</i>	canard	OE
<i>elephant</i>	elephant	OF
<i>elk</i>	élan	of obscure history; OE but not normal phonetic evolution (maybe MHG?)
<i>fallow-deer</i>	daim	OE
<i>fish</i>	poisson	OE
<i>flounder</i>	flet	AF
<i>fowl</i>	oiseau, volatile	OE
<i>garfish</i>	aiguille de mer, orphie	OE
<i>gazelle</i>	gazelle	OF, of Arabic origin
<i>greenfly</i>	puceron (vert)	OE
<i>grouse</i>	grouse (coq de bruyère)	of unknown origin: medieval L or Welsh
<i>halibut,</i> <i>holibut</i>	flétan	of obscure origin but cognate with Swedish, G, Du words
<i>heron</i>	héron	OF
<i>herring</i>	hareng	OE
<i>hippopotamus</i>	hippopotame	late L
<i>hookworm</i>	ankylostome	OE

Animal Names : the Marking of Plural

Name	Translation	Etymology
<i>horse</i>	cheval	OE
<i>jackass-deer</i>	singsing	OE for <i>deer</i> ; ME for <i>jack</i>
<i>lion</i>	lion	AF
<i>luce</i>	brochet	OF
<i>lynx</i>	lynx	L
<i>mackerel</i>	maquereau	OF but of unknown origin
<i>mallard</i>	colvert	OF but of obscure origin
<i>moose</i>	orignal	Narragansett [native American language]
<i>mountain lion</i>	puma	AF for <i>lion</i> ; OF for <i>mountain</i>
<i>musk-deer</i>	porte-musc	OE for <i>deer</i> ; F for <i>musk</i> (ultimately of Persian origin)
<i>neat</i>	bœuf, vache, génisse	OE
<i>neten</i>	animal du genre bœuf ou cheval	OE
<i>osprey</i>	balbuzard	L through an earlier OF noun
<i>partridge</i>	perdrix	OF
<i>perch</i>	perche	F
<i>pheasant</i>	faisan	AF
<i>pike</i>	brochet	perhaps OE
<i>plaice</i>	carrelet, plie	OF
<i>plover</i>	pluvier	OF
<i>quail</i>	caille	OF
<i>red deer</i>	cerf (commun)	OE
<i>reindeer</i>	renne	ON
<i>reptile</i>	reptile	late L
<i>rhinoceros</i>	rhinocéros	late L
<i>sable</i>	zibeline	OF
<i>salmon</i>	saumon	AF
<i>seal</i>	phoque	OE
<i>shad</i>	alose	OE but of unknown origin
<i>sheep</i>	mouton	OE
<i>shellfish</i>	crustacés; coquillages	OE
<i>shrimp</i>	crevette (grise)	obscurely related to MHG, MLG, ON
<i>silver-fish</i>	argentine	OE
<i>skate</i>	raie	ON
<i>snipe</i>	bécassine	obscurely related to MLG, MDu, OHG; prob. of Scn origin
<i>sole</i>	sole	OF
<i>stag</i>	cerf	OE
<i>starfish</i>	étoile de mer	OE

Nom	Traduction	Etymologie
<i>sturgeon</i>	esturgeon	AF
<i>swine</i>	porc	OE
<i>teal</i>	sarcelle	ME pointing to an unrecorded OE n.
<i>tench</i>	tanche	OF
<i>tiger</i>	tigre	OF
<i>trout</i>	truite	OE
<i>tuna</i>	thon	Sp American; perhaps related to L
<i>turbot</i>	turbot	OF
<i>walrus</i>	morse	Du
<i>wildebeest</i>	gnou	South-African Du
<i>woodcock</i>	bécasse	OE
<i>zebra</i>	zèbre	F, It, Sp or Portuguese, of Congolese origin

83 items