

May 8, 2003

## CLASS 2: Words and Categories

### Grammatical categories

- (1) A *grammatical category* is a class of expressions which share a common set of grammatical properties.  
 (Radford 1997: 29)

The **inventory of grammatical categories** for English follows straightforwardly for the most part from traditional grammars (your “school English”). But let’s go through the **major types** now and establish some evidence for them (supplemented by Haegeman & Guéron 2000: 53-63).

### Nouns

- (2) linguist, friend, lawyer, gallery, lunch, star, computer, book, friendship, heart, calendar...

These nouns, as different in *semantic meaning*, share properties of **nominal morphology**:

- the words in (2) are all *singular*
- singular nouns can follow an *indefinite determiner* (which marks singular): (3a)
- these nouns can be put into *plural* (‘be pluralized’) by adding the ending *-(e)s*: (3b)
- plural-marked nouns can follow, for instance, *numeral adjectives* (‘numerals’): (3c)
- nouns in general can be associated with the *genitive morpheme* (or ‘possessive’) *s*: (3d)

- (3) a. a linguist — **a** friend — **a** lawyer — **a** gallery — **a** lunch  
 b. linguist-**s** — friend-**s** — lawyer-**s** — gallery-**es** — lunch-**es**  
 c. **two** linguists — **three** friends — **four** lawyers — **five** galleries — **six** lunches  
 d. the linguist’s joy — the friend’s name — the lawyer’s guilt — the gallery’s opening

Words belonging to the same category also have a similar **distribution**: they appear in similar positions in the sentence. Nouns can, for example, be preceded the definite article *the* or by a demonstrative like *this*, as in (4a), as well as by possessive pronouns, such as *my* in (4b).

- (4) a. **the** linguist — **this** friend — **the** lawyer — **that** gallery — **the** lunch  
 b. **my** linguist — **your** friend — **his** lawyer — **her** gallery — **our** lunch

Other words that belong to the **lexical category** of nouns are given in (5a-c).

- (5) a. mother, daughter, teacher, girl, door, window, writer, soldier, bomb...  
 b. love, hatred, justice, friendship, faith, hope, charity, horror, thought...  
 c. information, water, food, milk, flour, sugar, cream, mud, blood, gas...

But these groups of nouns differ **semantically**. One class of nouns expresses *concrete entities, objects* or *persons*, such as (5a); others *abstract entities*, such as *concepts* or *feelings*, as in (5b).

Nouns from both classes can be *pluralized*, (6a); these are **count nouns**. That term derives from their property of being *countable*, (6b), and they usually can’t stand alone in a sentence, (6).

- (6) a. mothers — daughters — teachers — girls — doors — windows — writers  
 b. a/one mother — a/one daughter — a/one teacher — a/one girl — a/one door  
 c. \* Mother / Daughter / Teacher goes shopping / grows up / sucks.

Some nouns from the abstract-class need to be *specified* further if they occur with a *determiner* (for more, see below), such as (7a-b), or appear in their **bare form**, as illustrated in (7c).

- (7) a. \* The love / hatred / justice is wonderful / a pity / only for some.  
 b. The love I feel for Joy is wonderful.  
 c. Love makes the world go round.

Yet another class of nouns doesn’t usually have plural forms; as these are *non-countable words*, we call them non-count or **mass nouns**, (5c), shown in (8a-b), though they can be qualified, (8c).

- (8) a. \*informations — \*waters — \*foods — \*milks — \*flours — \*sugars — \*creams  
 b. \*an/one information — \*a/one water — \*a/one food — \*a/one milk  
 c. good information, fresh water, hot food, sour milk, fine flour, brown sugar

### Verbs

Verbs come in different flavours too. For starters, we identify verbs in terms of their *inflectional morphology*. English verbs come (and more often than not show up) in *base* or **root form**, (9a). One of the few examples of **agreement morphology** is the *third person singular present tense*, where the marker *-s* attaches to the root, (9b). Other types of **verbal morphology** are (regular) *past tense*, (9c), the *present participle gerund*, (9d), and the *past participle*, (9e).

- (9) a. work, wait, show, meet, go...  
 b. he/she/it work-**s** — wait-**s** — show-**s** — meet-**s** — go-**s**  
 c. work-**ed** — wait-**ed** — show-**ed** — \*meet-**ed** ⇨ *met* — \*go-**ed** ⇨ *went*  
 d. work-**ing** — wait-**ing** — show-**ing** — meet-**ing** — go-**ing**  
 e. work-**ed** — wait-**ed** — show-**ed** — \*meet-**ed** ⇨ *met* — \*go-**ed** ⇨ *gone*

And then there are, of course, the much loved *irregular forms* (past tense, past participles):

- (10) a. buy ⇨ **bought** — bring ⇨ **brought** — speak ⇨ **spoke** — come ⇨ **came**  
 b. buy ⇨ **bought** — bring ⇨ **brought** — speak ⇨ **spoken** — come ⇨ **come**

Apart from showing up in their specific morphology, verbs can be distinguished **distributively** from other grammatical categories by being able to be preceded by elements like *will*, *can* or *must* (**modal auxiliaries**, see below), (11a), or by *to*, which signals the infinitival form, (11b).

- (11) a. Joy **will** / **can** / **must** comb Miss Emma tonight.  
 b. It is important for Joy **to** comb Miss Emma tonight.

## Adjectives

Adjectives, like those in (12), also have a number of unique properties.

- (12) young, kind, attractive, important, studious, red, local, interesting, smart, tall, tiny ...

With respect to **adjectival morphology**, adjectives can be associated with the **affixes** *-er* and *-est* to express the notion of **degree** (*comparative* and *superlative*, respectively): (13a-b).

- (13) a. young-**er** — kind-**er** — redd-**er** — smart-**er** — tall-**er** — tini-**er**  
b. young-**est** — kind-**est** — redd-**est** — smart-**est** — tall-**est** — tini-**est**

Degree for adjectives that are *polysyllabic* can be expressed by a preceding *more/most*, as shown in (14a-b), and, as so often in natural language, there are exceptions, like those in (14c).

- (14) a. **more** attractive — **more** important — **more** studious — **more** local  
b. **most** attractive — **most** important — **most** studious — **most** local  
c. good ⇨ **better** ⇨ **best** — bad ⇨ **worse** ⇨ **worst**

**Distributively**, we can observe that adjectives can co-occur with other *degree words*: (15a-g).

- (15) a. **so** young — **so** kind — **so** attractive — **so** important  
b. **too** young — **too** kind — **too** attractive — **too** important  
c. **that** young — **that** kind — **that** attractive — **that** important  
d. **very** young — **very** kind — **very** attractive — **very** important  
e. **quite** young — **quite** kind — **quite** attractive — **quite** important  
f. **rather** young — **rather** kind — **rather** attractive — **rather** important  
g. **how** young — **how** kind — **how** attractive — **how** important [‘interrogative *how*’]

The **position** of adjectives in a sentence (or rather, noun phrase) is directly preceding the noun:

- (16) a. a / the / this / that / those \_\_\_\_\_ *noun(s)*  
b. my / your / his / her / our / your / their \_\_\_\_\_ *noun(s)*  
(17) a. **young** cat  
b. the **kind** teacher  
c. this **attractive** theory  
d. my **important** wife

## Adverbs

Adverbs, like those in (18a), are formed in three ways. **Adverbial morphology** consists of adding the *adverbial marker -ly* to adjectives, like (18b). But not all adverbs are *morphologically related* to adjectives. Some are *formally identical* to adjectives, others *exceptional*: (18c).

- (18) a. carefully, eagerly, strongly, badly, happily, lazily, long, well  
b. care-ful-ly — eager-ly — strong-ly — bad-ly — happi-ly — lazy-ly  
c. long ⇨ **long** — good ⇨ **well**

In terms of **distribution**, adverbs can, just like adjectives, be *modified by degree words*: (19a-i).

- (19) a. Miss Emma balanced on the edge **very carefully**.  
b. The students study for syntax **more eagerly** than for postmodernism.  
c. The teacher press the chalk **so strongly** on the blackboard that it breaks.  
d. I fix things **too badly**, so they don't work.  
e. Joy lets me cook **quite happily**.  
f. Cats lie on beds **rather lazily**.  
g. Some classes don't have to be **that long**.  
h. **How well** do you draw syntactic trees?  
i. I will prepare that class **well enough**.

Still, adverbs cannot be inserted into exactly the same **positions** as adjectives: (20a-b).

- (20) a. Her (very) **careful** answer surprised him.  
b. \* Her (very) **carefully** answer surprised him.

## Prepositions

**Morphologically**, prepositions are invariant, i.e. there is no prepositional morphology involved. ‘Classical’ prepositions are *monosyllabic*, as in (21a), while others are *polysyllabic*, as in (21b).

- (21) a. in, on, of, at, by, for, with (...)  
b. about, against, above, beyond, underneath, after, before (...)

But their **distribution** is pretty clear: prepositions are usually followed by a nominal expression (some phrase containing a noun, a *noun phrase*; see next class), as in (22a-j).

- (22) a. **in** class  
b. **on top of** the world  
c. **at** a nice restaurant  
d. **by** the author  
e. **with** this book  
f. **about** syntax  
g. **against** postmodernism  
h. **above** my head  
i. **beyond** the horizon  
j. **underneath** the surface

Some prepositions can also be followed by a *sentence*, illustrated in (23a-b). (We will distinguish prepositions from **particles**, and also **complementizers**, in subsequent classes.)

- (23) a. **after** [they left]  
b. **before** [I talk to you again]

What all prepositions do have in common is that they can be **modified**: (24a-d).

- (24) a. **right in** here  
b. **straight by** the book  
c. **right about** now  
d. **straight against** the tide

### Lexical vs. functional words

We distinguish the above described **lexical words** from another class of grammatical categories, **functional words**. Before wondering why, let's look at a representative of the latter group.

#### Determiners

These are the little guys that pop up in front of the noun (and any *nominal modifiers*, such as adjectives). The cover term we use in the generative framework is **determiners** (see next class about X'-Theory). Strictly speaking, however, these are all distinct words, and a number of items fall into this category: *definite* and *indefinite articles*, (25a), **numerals**, (25b), **quantifiers**, (25c), **possessive pronouns**, (25d), and **demonstrative pronouns**, (25e) — I probably forgot a few...

- (25) a. the, a(n)  
 b. one, two, three...  
 c. some, many, most, no, all (...)  
 d. my, your, his, her, its, our, their  
 e. this, that, these, those

In general, these items precede the noun (plus modifying material; see above). We can observe that some of these are in **complementary distribution**, (26), while others can co-occur, (27).

- (26) a. \***this** the student [demonstrative pronoun + definite article]  
 b. \***that** a student [demonstrative pronoun + indefinite article]  
 c. \***a** her book [indefinite article + possessive pronoun]  
 d. \***the** his book [definite article + possessive pronoun]  
 e. \***this** their teacher [demonstrative pronoun + possessive pronoun]  
 f. \***that** our course [demonstrative pronoun + possessive pronoun]
- (27) a. **the** two students [definite article + numeral]  
 b. **my** two **thousand** books [possessive pronoun + numeral]

*Quantifiers* are a bit tricky and lead to a messy partition. (28) offers just a brief glimpse.

- (28) a. \***these** some students [demonstrative pronoun + quantifier = *indefinite* article]  
 b. **those** many students [demonstrative pronoun + quantifier]  
 c. **all** those students [quantifier + demonstrative pronoun]  
 d. **some** of **these** students [quantifier + demonstrative pronoun with *of*-insertion]

*Demonstratives* and *articles* on the other hand can be shown to differ quite clearly: (29).

- (29) a. **This** is a nice house. / I don't like **that**.  
 b. \* **The** is a nice house. / I don't like **the**.

- The **distributive** evidence in (26) suggests that *articles*, *demonstratives* and *possessives* occupy the same position inside the *nominal expression* (NP or, as we will see in a week or two, DP).
- We can also see in (27) that *numerals* follow this class of determiners (cf. \*two the students).
- *Quantifiers* seem to have a more complicated behaviour, which we won't be concerned with.

So, how are determiners different from the other grammatical elements (nouns, verbs, adjectives, adverbs, prepositions)? In particular, why do we call the first class **lexical categories** and the second **functional categories**?

One traditional argument is that lexical words have **lexical/descriptive content**, while functional words carry an essentially **grammatical function**, they act as **functors** (hence the terminology!). This distinction can be carried on and rationalized in that *lexical categories* are words from an **open class** word list, while *functional categories* are **closed class** items.

This means that, by and large, *open class* items can be constantly added to the **vocabulary** of a language. We can always make up new nouns, turn these into verbs, adjectivize them and finally create an adverb out of them (for example; the rules governing such creation and derivation are part of **morphology**). Our inventory of open class items is in principle **infinite**.

*Closed class* items, on the other hand, are limited. In general, no new items of this class can be added to the vocabulary. *Prepositions* may be a marginal group, as our inventory of prepositions seems to be quite **finite** — hence the “(…)” after these (and some other items) above — but given the criterion we just developed, they certainly carry *descriptive content*.

- (30) a. The student **met** the teacher. (30') a. A student met the teacher.  
 b. The student **hit** the teacher. b. **This** student met the teacher.
- (31) a. The **butcher** / **dean** / **president** / **child** met the **father** / **athlete** / **salesman** / **author**.  
 b. Our teacher writes **on** / **above** / **underneath** / **behind** / **inside** / **at** the blackboard.  
 c. Miss Emma like **fluffy** / **soft** / **big** / **pretty** / **high** / **illegitimate** / **woolen** materials.  
 d. All students study **hard** / **thoroughly** / **little** / **well** / **badly** / **easily** for syntax.

#### Pronouns

A second type of *functional category* is made up by **pronouns**. English pronominals are the last true remnants of **morphological case-marking**, as shown in Table 1. We distinguish *nominative* from *objective* (neutral whether it's *accusative* or *dative*) cases, a pronoun's **Case-property**. We further distinguish the so-called **phi-** or **φ-features** (see the class about features in a few weeks).

PHI-FEATURES			CASE-PROPERTIES		
Person	Number	Gender	Nominative	Objective	
1	singular	—	I	me	
1	plural	—	we	us	
2	—	—	you	you	
3	singular	masculine	he	him	
3	singular	feminine	she	her	
3	singular	neuter	it	it	
3	plural	—	they	them	

Table 1: The English pronominal system

As for their **category status**, some linguists have argued that pronouns are another sub-class of *determiners*, on the basis of data like (32a-b). But this use is rather restricted, (33a-d), and such a classification not without problems (better perhaps: **pronominal** vs. **pronominal determiners**).

- (32) a. **You** (*lousy*) *postmodernists* don't have much to say to **us** (*clever*) *generativists*.  
 b. **You** don't have much to say to **us**.

- (33) a. \***he** postmodernist  
 b. \***her** generativist  
 c. \***it** issue  
 d. #**they** linguists

### Auxiliaries

Another class of *closed class* items consists of **auxiliary elements**. We classically distinguish **modal auxiliaries**, (34), from **perfective, imperfective/progressive & dummy auxiliaries**, (35) — in some (semantic) senses similar, English also has a bunch of **inflectional morphemes**, (36).

(34) will, would, may, might, can, could, shall, should, must

(35) have, be, do

(36) *-ing, -s, -ed, -en*

Auxiliaries have the *semantic function of marking grammatical properties* of the verb that (by necessity) follows them: *tense* (e.g. present vs. past), *aspect* (such as progressive, habitual), *voice* (active vs. passive), *mood* (indicative, subjunctive etc.) or *modality* (possibility, necessity...).

- (37) a. The students **will** learn syntax.  
 b. The students **have** learned syntax.  
 c. The students **are** / **were** learning syntax.  
 d. Syntax **will be** / **has been** / **is being** learned by the students.

- (38) a. They'**ll** learn syntax.  
 b. They'**ve** learned syntax.  
 c. They'**re** learning syntax.

- (39) a. The students learn-**ed** syntax.  
 b. The linguist teach-**es** syntax.

- (40) a. The students **would** / **may** / **can** / **shall** / **must** learn syntax.  
 b. The students **would** / **may** / **can** / **shall** / **must be** learn-*ing* syntax.  
 c. The students **would** / **may** / **can** / **shall** / **must have** learn-*ed* syntax.  
 d. Syntax **would** / **may** / **can** / **shall** / **must be** learn-*ed* by the students.  
 e. Syntax **would** / **may** / **can** / **shall** / **must have been** learn-*ed* by the students.

In their **distribution**, auxiliaries differ from verbs in being able to undergo **inversion**:

- (41) a. **You** can pass the exam. (41') a. Can **you** pass the exam?  
 b. **They** studied hard. b. Did **they** study hard?

- (42) a. \* **Solved you** the homework? (42') a. Did **you** solve the homework?  
 b. \* **Come you** home tonight? b. Do/*Will you* come home tonight?

Another difference is that auxiliaries can directly be **negated** by *not*, without *do-support*:

- (43) a. Miss Emma **can not** / **can't** go outside.  
 b. Joy **has not** / **hasn't** finished work yet.  
 (44) a. \* They **like not** / **liken't** the food. (44') a. They **do not** / **don't** like the food.  
 b. \* I **played not** / **playn't** the piano. b. I **do not** / **don't** play the piano.

Auxiliaries, in contrast to verbs, can also be used as **tags** (in so-called *tag questions*):

- (45) a. You don't like this, **do you**? (45') a. \* You don't like this, **like you**?  
 b. We will learn this, **won't we**? b. \* We will learn this, **learn('t) we**?

### Infinitive particle

The fifth type of *functional category* in English is the **infinitive particle** *to*. The only type of element it allows (and requires!) to follow it is an *infinitival clause*, as illustrated in (46).

- (46) a. I wonder whether **to skip** this section.  
 b. You probably want **to go** home now.  
 c. But I don't intend **to let** you go now!

This is its identifying property, basically in terms of **distribution** again. As such, it can be clearly contrasted with the homophonous preposition *to* (see Radford 1997: 46ff.). What is of more interest for us is **what category** infinitival *to* belongs to.

Note that *distributionally*, infinitival *to* behaves very much like the **finite auxiliaries**: (47)-(49).

- (47) a. It is important [ that the students **should** learn syntax ].  
 b. It is important [ for the students **to** learn syntax ].

- (48) a. Everybody **should** / **would** / **could** / **must** / **will** love / \*loves / \*loving syntax.  
 b. Everybody is supposed **to** love / \*loves / \*loving syntax.

- (49) a. Joy doesn't want to eat Pounce, but I know Miss Emma **would** eat Pounce.  
 b. Joy wouldn't eat Pounce, but I know Miss Emma **wants** to eat Pounce.  
 c. \* Joy wouldn't eat Pounce, but I know Miss Emma **wants** eat Pounce.

Establishing such a connection between finite auxiliaries and infinitival *to*, we can view *to* as the **non-finite** counterpart of the (type of) **syntactic category** that these elements belong to. Given that these auxiliaries are finite, they express *tense* and they show *agreement* (with the subject) — and that is something we see infinitives do in other languages (e.g. Italian): *cantare* 'to sing'. (Note that Portuguese even has *inflected infinitives* that show some agreement marking as well.)

The unifying property can thus be characterized as **inflection** (see more in the next two classes).

### Complementizers

The final group of *closed class* items we look at are **complementizers**. These elements introduce entire sentences, i.e. *subordinate* or **embedded clauses**: (50) — and as these clauses function as the *complement* of the complementizer, we call them also **complement clauses** (as opposed to **adjunct clauses**, those that are not related thematically to the *main* or **matrix clause**; later...).

- (50) a. By now you all must think [ **that** syntax is the greatest thing ].  
 b. Please tell me [ **if** you *don't* understand something (or anything?) ].  
 c. I would love [ **for** you all to pass this class and continue with syntax ].  
 d. Everybody wants to know [ **whether** this class *will* be as good as it looks ].

We can distinguish **two types of complementizers**: those, that *require their complement clause* to be *finite* and those, that require it to be *non-finite* (basically, *infinitival*).

- (51) a. \* By now you all must think [ **that** syntax *to* be the greatest thing ].  
 b. \* Please tell me [ **if** you *to* understand something (or anything?) ].  
 c. \* I would love [ **for** you all *will / should* pass this class and continue with syntax ].  
 d. \* Everybody wants to know [ **whether** this class *to* be as good as it looks ].

Another big difference between *that/for* and *if/whether* is that the first two introduce declarative sentences, as shown in (52a-b), and the other two interrogative sentences, as in (52c-d).

- (52) a. I know **that** Macs are better than PCs. ⇨ Macs are better than PCs.  
 b. I wish **for** everybody to own a Mac. ⇨ Everybody (should) own(s) a Mac.  
 c. I don't know **if** you care. ⇨ Do you care?  
 d. I wonder **whether** PCs are any good. ⇨ Are PCs any good?

Complementizers serve three **grammatical functions**.

- they mark the fact that the clause they introduce is the **complement of some predicate**
- they serve to indicate whether the clause they introduce is **finite or non-finite (infinitival)**
- they mark the **illocutionary force (semantic/pragmatic function)** of the clause they introduce

As with some other categories (e.g. infinitival *to*), the question arises whether complementizers need to be assigned their **own, separate grammatical category** (i.e. *complementizer*) or whether we can subsume them under *already established categories*. By looking at the words themselves, an obvious choice would be to call *for* a preposition (just like the preposition *for*), *that* a determiner (demonstrative), and *if* and *whether* maybe as adverbs. Would that work? ⇨ No...

- (53) a. He headed (*straight*) **for** the pub.  
 b. She hoped (*\*straight*) **for** him to head for the pub.  
 c. **For** *her* to go *there* would be impossible.  
 d. \* **For** *her* would be impossible.

- (54) a. She refuses to believe **that** *rumour*.  
 b. She refuses to believe **that** *he went to the pub*.  
 c. She refuses to believe /ðæt/ / **ðæt** / *rumour*.  
 d. She refuses to believe /ðæt/ / \* /ðæt/ *he went to the pub*.  
 e. She refuses to believe **this** / **the** *rumour*.  
 f. \* She refuses to believe **this** / **the** *he went to the pub*.

The same types of arguments can be made for the other complementizers. Thus, **distributionally** complementizers behave like a class of their own, and so they do **functionally** as well.

## Categories and structure

Given the detailed discussion about the **morpho-syntactic properties** of each of the categories reviewed, you should all be able to construct *tests* to determine the **categorial status** of a given word. And as you will see in today's homework, some words are not that easily classified. Sometimes, the (apparently) same word can have different *categorial status*. (In those cases, the words in question are obviously not the same but simply homophonous, though possibly related.) Next class we'll see how phrases are built. For that we need an abbreviated system of **categories**, and we use the following *capital-letter abbreviations* as shorthand notations:

- (55) *N* = Noun  
*V* = Verb  
*A* = Adjective  
*Adv* = Adverb  
*P* = Preposition  
*D* = Determiner (possibly Dem = demonstrative, Q = quantifier, Num = numeral, Poss = possessive)  
*I* = Inflection for auxiliaries and infinitival *to* (possibly Aux = auxiliary, Mod = modal etc.)  
*C* = Complementizer

Note that I didn't include **pronouns** — the reason will become clear shortly on this station.

As a first step towards **phrase structure**, we can exercise **labeled bracketing** of words: (56).

- (56) a. [N car] — [N love] — [N thought] — [N syntax] etc.  
 b. [v care] — [v love] — [v think] — [v study] etc.  
 c. [ð the] [N car] [v drives] [<sub>Adv</sub> well]  
 d. [N? I] [v want] [to all] [N students] [i to] [v learn] [N syntax]  
 e. [N? Miss Emma] [v thinks] [c that] [N Pounce] [iv? is] [<sub>A</sub> great]  
 f. [ð the] [N leaves] [<sub>Adv/Mod</sub> will] [v turn] [<sub>Adv</sub> beautifully] [<sub>A</sub> brown]

## Homework: Exercise 2

- A. 📖 Go thoroughly over **chapter 2** of Radford (1997) — again!  
 B. 📖 Prepare next class by **reading chapter 3**.  
 C. 📖 Also prepare next class by **reading the additional material (Handapparat): pp. 33-40 & pp. 66-77** of Carmie (2002) and the **two hand-outs** from Rajesh Bhatt.  
 D. 📖 Look at any of the **exercises** in “Red Radford” (Handapparat): pp. 70-85.  
 (You may find it useful to read chapter 2 of this bigger version; it's in the library.)  
 E. ✍ Answer **exercise III** in Radford: pp. 56-57 in about a page (max. two pages).  
 F. ✍ Answer **exercise IV** in Radford: pp. 58-59 in about two pages.  
 G. ✍ Do any 15 of **exercise III** in “Red Radford”: pp. 71-72.

## References

Haegeman, Liliane & Jacqueline Guéron. 2000. *English Grammar: A Generative Perspective*. Oxford: Blackwell.