

## October 6 & 8 summary (24.902)

1. English verbal system.
2. Case: Introduction

### 1. English verbal system

*The beginning of this is repeated from the previous summary, with the same numbering -- for your convenience.*

English has all sorts of odd properties and baroque ornaments in its verbal system, but it is worth spending a bit of time on it, if only for sentimental reasons. It was the first system analysed successfully in the modern study of syntax. See Chomsky's famous 1957 book *Syntactic Structures*, originally lecture notes for an MIT undergraduate course circa 1955.

**Step #1: There is a template. The various verbs must come in the order indicated in (20):**

(20) **Template for ordering of verbs**

modals<sup>1</sup> > *have* > *be* > V

- (21) a. John must have been writing letters at the time of his murder.  
b. \*John has must be writing letters for a long time now.  
[etc.]

[In Texas English, and elsewhere in the South, a few forms like *might could* appear, but in other dialects, only one modal verb, one *have*, and one *be* are possible per clause. Even in Texas English, not all combinations of two modals are found. If you search for "double modals" on Google, you will find lots of discussions of this.]

**Step #2: Each auxiliary verb, including I even when it's null, subcategorizes for a particular type of morphology on the head of its sister:**

- (22) a. [I +finite] subcategorizes for [V +tense, +agreement]  
b. [V +modal] subcategorizes for [V +bare-stem]  
c. *have* subcategorizes for [V +en]  
d. *be* subcategorizes for [V +ing]

The features like "+bare-stem" are just stand-ins for more technical terminology. Verbs with the +en feature are also called "past participles" (e.g. *written*). Verbs with the +ing feature are also called "present participles".

<sup>1</sup> *must, can, could, shall, should, will, would, may, might, ought...* Modal verbs (*will, can, must, should...*) are a special class identifiable by the absence of 3sg agreement (*Mary can run. / \*Mary cans run.*)

**Step #3: Auxiliary-movement to I.**

### Interaction with Negation

- The first auxiliary verb (if there are any auxiliary verbs) always precedes sentence negation.

- (23) a. Mary must not have paid attention.  
b. \*Sue not must pay attention.

- (24) a. Mary has not written the letter.  
b. \*Mary not has written the letter.  
c. Mary must not have written the letter.

- (25) a. Mary is not reading the book.  
b. \*Mary not is reading the book.

- Negation apparently can occur as a modifier of any VP in a string of auxiliary-verb-headed VPs, but it only counts *sentence negation* when it follows the first auxiliary. [This topic came up in response to a question from Philip Bramsen, and is important.] Sentence negation can be diagnosed by the fact that it triggers a switch in polarity in tag questions:

- (26) **Polarity switch in tag questions when *not* follows first auxiliary**  
a. Mary should pay attention, shouldn't she? [\*should she?]  
b. Mary should not pay attention, should she? [\*shouldn't she?]

- (27) **No polarity switch in tag questions when *not* comes elsewhere**  
a. Mary should have not paid attention, shouldn't she? [\*should she?]  
b. Mary should be not paying attention, shouldn't she? [\*should she?]

- Now why should sentence negation follow the first auxiliary verb? Surely it would make sense for it to precede the first auxiliary verb, so that it modifies the whole string of VPs! We can make sense of the situation if we say that negation does precede the first auxiliary verb (as a modifier), but the verb itself moves to I:

- (28) Mary  $\sqrt{I \text{ [VP not has written the letter]}} \Rightarrow$  Mary has+I [VP not \_ written the letter]

- (29) **Rule: Auxiliary verb movement to I in English (oblig)**  
[V +aux] moves to I (over *neg*) when I is phonologically null.

**Exercise for the reader:** Can you show that the auxiliary verb can also move over an adverb?

**Step #4: Main verbs and negation: *do***

Main verbs in Modern English do not move to I. We can see this easily in the impossibility of separating a main verb from its complement by *not* or an adverb:

- (30) a. \*Mary speaks not French.  
b. \*Mary speaks barely French.

Instead we say:

- (31) a. \*Mary not speaks French.  
b. Mary barely speaks French.

But wait a minute! (31a) is not acceptable. Instead, when I is separated from V by *not*, a finite form of the verb *do* is inserted in I:

- (32) Mary does not speak French.

- (33) **Rule: *Do* support (version 1)**  
I --> *do* / \_\_ *not*

There is a lot more to be said about "*Do* support", but we won't go into it here. One key fact is that it only happens as a "Last Resort" to save an I separated from V by *not*. One key mystery that we will not tackle in this class is why it is not triggered by adverbs, but only by *not*.

**A practical rule for drawing trees in this course:**

Every finite sentence has an I node, even when you don't hear an auxiliary. The "I" is phonologically null.

**2. Case**

**"All languages are alike until proven different."**

**What is case: Nominative/accusative languages**

Many languages mark nouns or noun phrases with morphology that indicates their grammatical function in the clause (subject, object, etc.). The various forms that nouns (or NPs) take in such languages are called *cases*.

The cases have names that historically come from Latin mistranslations of Greek terminology. The ones that you are likely to encounter in this course are:

- nominative:** subject of a finite IP  
**accusative:** direct object; also other uses discussed below  
**genitive:** possessor, what in English is expressed by '*s* or *of*  
**dative:** indirect object

Here is a sentence from Russian that shows all four cases listed above. The case morphology is italicized:

- (34) Ol'ga            dala    [knigu            Maši]            devuške.  
Olga-NOM    gave    book.ACC    Masha-GEN    girl-DAT  
'Olga gave Masha's book to the girl.'

Many languages have additional cases, with names like instrumental, locative, allative, elative, etc.

**Ergative/absolute languages**

In some languages, instead of nominative and accusative, we find cases with the following names:

**absolute:** direct object if the clause contains one, otherwise subject (of a finite IP)

**ergative<sup>2</sup>:** subject of a finite IP in sentences that have a direct object

The following examples from Basque illustrate this:

- (6) a. Ez da inor etorri.  
no has anybody.ABS come  
'Nobody came.'
- b. Ez dio inork Iboni etxea eman.  
no has anybody-ERG Ibon-DAT house-the-ABS given  
'Nobody gave the house to Ibon.'

In many languages, the ergative/absolute pattern coexists with the nominative/accusative pattern. Quite commonly, for example, a language shows ergative/absolute case marking in the perfect tense ('I have written the letter') or past tense ('I wrote the letter') and nominative/accusative case marking in other tenses. This is true in Hindi, where it is the perfect tense that is ergative/absolute and in Georgian, where it is the past tense (called 'aorist') that is ergative/absolute (along with a few other environments). This phenomenon is called *split ergativity*. We may return briefly to ergative/absolute languages, perhaps in a problem set. But otherwise, we will focus on nominative/accusative languages.

**Environments of Accusative case**

In languages like Russian, Latin, Japanese, and many others, *accusative* case is found on the complements of V and P, but not on the complements of N and A. A complement of N and A either bears a case such as genitive or else is a PP. The following examples from Russian illustrate this:

- (35) **Complement to V (accusative)**  
[vp čitaet knigu]  
reads book-ACC
- (36) **Complement to P (accusative)**  
[pp v Moskvu]  
to Moscow-ACC

<sup>2</sup> From the Greek root *erg-* 'work'.

- (37) **Complement to N** (**\*accusative**)  
a. [NP uničtoženie Moskvvy]  
destruction Moscow-GEN  
'destruction of Moscow'  
b. \*[NP uničtoženie Moskvu]  
destruction Moscow-ACC
- c. [NP ljubov' [pp k muzyke]]  
love to music  
'love of music'  
d. \*[NP ljubov' muzyku]  
love music-ACC
- (38) **Complement to A** (**\*accusative**)  
a. [AP dovolen obedom]  
satisfied dinner-INSTR<sup>3</sup>  
'satisfied with dinner'  
b. \*[AP dovolen obed]  
satisfied dinner-ACC
- c. [AP serdit [pp na menja]]  
angry on me  
'angry at me'  
d. \*[AP serdit menja]  
angry me-ACC

We can summarize this observation in (39). Let us assume that NPs enter the tree without accusative (or nominative) case features, and get *assigned* case by V, P, or other case assigners.<sup>4</sup>

- (39) **Accusative case in Russian, Latin, etc.**  
a. V and P assign accusative case to an NP complement.  
b. N and A do not assign accusative case (to an NP complement).

**3. "Abstract case" in English**

At first glance, case does not appear to be a part of English grammar.

Quite possibly, we should think of the *I/me, he/him* distinction among pronouns as a case distinction, but this distinction has some properties different from those one expects of case marking. Anzwas, other nouns definitely do not show morphological case.

Nonetheless, there is a generalization about complements in English that looks an awful lot like the generalization stated in (39). Compare (39) to (40), and compare the distribution of Russian accusative case in (35)-(38) with the distribution of English NPs in (40)-(44).

- (40) **Facts about the availability of NP complements in English**  
a. V and P allow an NP complement.  
b. N and A do not allow an NP complement.

<sup>3</sup> Instrumental case, another case like genitive and dative.

<sup>4</sup> The morphology must match the features assigned to the NP.

- (41) **Complement to V (NP)**  
[VP reads the book]
- (42) **Complement to P (NP)**  
[PP to the city]
- (43) **Complement to N** (\*NP)  
a. [NP the destruction of the city]      b. \*[NP the destruction the city]  
c. [NP our love [PP of music]]      d. \*[NP our love music]
- (44) **Complement to A** (\*NP)  
a. [AP satisfied with dinner]      b. \*[AP satisfied dinner]  
c. [AP fond [PP of the child]]      d. \*[AP fond the child]

Clearly there's a pattern! Putting subjects aside for the moment, the following seems to be true:

- Where Russian allows an accusative NP as a complement, English allows an NP.
- Where Russian does not allow an accusative NP -- but might allow an NP with some other case -- English simply does not allow an NP.

In Russian, the following fact is obvious on the face of it, since any NP that *can* show case morphology *must* show case morphology:

- |  |
|--|
| (45) <b>Case Filter</b><br>*[NP -case] |
|--|

Suppose the Case Filter is also true of English, and suppose the distribution of accusative case is governed by (39) in English, just as it is in Russian. This makes English and Russian look very much alike -- which is actually true, as we've seen.

- |   |
|---|
| (46) <b>Similarities between English and Russian</b><br>a. Case Filter holds [(45)].<br>b. The distribution of accusative case is governed by (39). |
|---|

We would then recognize two differences between English and Russian:

- (47) **Differences between English and Russian**
- Case morphology in English is phonologically zero.
  - English has accusative case, but does not have genitive, dative, instrumental, etc.

The fact that English lacks such cases as genitive, dative, and instrumental, means the complement to N and A simply *may not be an NP*.

- If the complement to N or A is an NP that lacks case entirely, it violates the Case Filter.
- The complement to N or A may not be an accusative NP, given (39).
- There is no other case option in English for such an NP.

**This is why what looks like a restriction on accusative case in Russian looks like a restriction on the very existence of NPs in English.**

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### Is the idea of phonologically null case-marking absurd?

No. Even in Russian, there are some nouns -- mostly borrowings from other languages -- which, because of their non-Russian phonology, cannot take case endings. Such nouns are called "indeclinable" (see <http://linguistlist.org/issues/11/11-2149.html> for discussion). Indeclinable nouns act as if they have nominative, genitive, dative, accusative, etc. case marking, even though no pronounced morphemes register these cases:

- (48) **Indeclinable kangaroos**
- |  |  |
|--|--|
| a. [VP vidit kenguru]<br>sees kangaroo-ACC   | b. [PP v kenguru]<br>into kangaroo-ACC                                       |
| c. [NP uničtoženie kenguru]<br>destruction kangaroo-GEN<br>'destruction of the kangaroo' | d. [NP ljubov' [PP k kenguru]]<br>love to kangaroo<br>'love for a kangaroo'  |
| e. [AP dovolen kenguru]<br>satisfied kangaroo-INSTR<br>'satisfied with the kangaroo'     | f. [AP serdit [PP na kenguru]]<br>angry at kangaroo<br>'angry at a kangaroo' |

This little corner of Russian looks just like English with respect to (47a), and unlike English (because Russian has genitive, dative, etc.) with respect to (47b). It shows us that the idea of phonologically null case marking is necessary even in Russian, and therefore is not an absurd idea for English.

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## 4. The Adjacency Condition on Accusative Case Assignment

We are developing a picture of a part of syntax called **Case Theory**. Case Theory distinguishes among the syntactic categories in two ways:

1. It distinguishes between *accusative case assigners* (e.g. V, P) and categories that do not assign accusative case (e.g. N, A).
2. It distinguishes between NP, which needs case by the Case Filter, and other categories such as PP and CP, which do not need case.

Let us focus on difference #2. The distinction between NP complements and PP and CP complements is visible in the morphology of languages like Russian. Nouns bear case morphology, but prepositions and complementizers do not.

Interestingly, the distinction shows up in English as well -- in a different way. Consider verbs like *put* and *persuade* that take more than one complement. When one of these complements is an NP, it is always the one that is next to the verb:

- (49) a. Sue put the book under the desk.  
b. \*Sue put under the desk the book.
- (50) a. Bill persuaded his friends that the world is flat.  
b. \*Bill persuaded that the world is flat his friends.

For verbs that take a PP and a CP complement, or two PPs, there may be a slight preference for one order of complements over another, but it is nothing like the strong effect seen in (49) and (50).

- (51) a. Sue spoke to Tom about Bill.  
b. Sue spoke about Bill to Tom.
- (52) a. Sue shouted to her friends that it was snowing.  
b. ?Sue shouted that it was snowing to her friends.

Notice that the ordering effect also disappears in NP, where the complement that would be accusative in VP is replaced by a PP:

- (53) a. the placement of the book under the desk  
b. the placement under the desk of the book
- (54) a. her promise to her friends that she would leave  
b. ?her promise that she would leave early to her friends

This adjacency requirement on V and an NP complement supports our view that there is something special about the relationship between these two elements -- i.e. that V provides NP with the accusative case that it needs in order to satisfy the Case Filter. We have thus discovered an ***adjacency condition*** on accusative case assignment:

- (55) **Accusative case assignment (version 1)**  
 $\alpha$  assigns accusative case to  $\beta$  only if:  
 i.  $\alpha$  is V or P (not N or A);  
 ii.  $\beta$  is the complement of  $\alpha$ <sup>5</sup>; and  
 iii.  $\alpha$  and  $\beta$  are adjacent.<sup>6</sup>

<sup>5</sup> We don't want V to assign case to its specifier, for example, even if that specifier is adjacent to V. V does not assign accusative case to the subject of the sentence.

Notice that in a language like French that shows movement of V to I over adverbs or negation, it is the pre-movement position of V that is adjacent to an NP complement. We may imagine that accusative case is assigned before verb movement, or else that the "trace" of the moved V assigns case.

**We no longer need to suppose that any special rules besides the laws of Case Theory dictate the relative ordering of complements. In particular, we do not need to build this into phrase structure rules.**

<sup>6</sup> The second NP in "double-object" constructions like *give the boy the book* is an obvious problem for the adjacency condition. I ask you to disregard this construction for now. I don't know if we'll return to it, but we might.