Linguistic Terminology

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11-721: Grammars and Lexicons

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Words and Morphology

- Words
- Morphemes
- Allomorphs
- Inflectional and Derivational Morphology
- Verb Inflection
- Noun Inflection

What is a word?

There are no spaces in spoken language. How do we know where the word boundaries are?

(1) a. Hewenttotownonhishorse

b. hew entot ownonh isho rse

What is a word?

Welsh (Sadler, 1988 *Welsh Syntax*)[1]

Divide these sentences into words.

(2) a. canithsiôn
John will sing.

b. canithmair
Mary will sing.

c. gweloddsiônyddamwain
John saw the accident.

d. gweloddsiônyllyfr
John saw the book.

e. darllenoddsiônyllyfr
John read the book

[1]If you don't know where a language is spoken, look it up in the index of languages in Comrie's book or in the International Encyclopedia of Linguistics in the LTI library. Welsh is a Celtic language spoken in Wales in Britain.

Some possible criteria for identifying words

- recurring units of form and meaning
- the smallest things you can say in isolation
- pauses are not possible inside a word

There are many exceptions and unclear cases regardless of what definition of word we use. However, in the data that we will work with in this class, words will be separated by spaces, which may not match the standard orthography of the language.

Morphemes

Words are recurring units of form and meaning but they are not the smallest units of form and meaning. The smallest units of form and meaning are *morphemes*. (This definition of morpheme has many exceptions and unclear cases.)

Japanese

Find the morphemes that mean *eat*, *give*, *see*, past tense, and non-past tense.

taberu	eats
tabeta	ate
ageru	gives
ageta	gave
miru	see
mita	saw

Allomorphs

Sometimes the same meaning is associated with a different form. When this happens, we say that the morpheme has *allomorphs*.

English

* represents a reduced vowel.

cats	s	brushes	*z	bags	z	names	z
mats	s	rashes	*z	bugs	z	forms	z
maps	s	churches	*z	crabs	z	pins	z
trips	s	sandwiches	*z	cribs	z	fans	z
books	s	roses	*z	beds	z	things	z
bricks	s	prizes	*z	flies	z	papers	z
giraffes	s	faces	*z	theories	z	corners	z
		mouses	*z	days	z	lables	z
		judges	*z	toes	z	pencils	z
		bridges	*z	shoes	z	calves	z
		garages	*z				

Solving a Morphology Problem

Find the environments for the allomorphs:

-s occurs after p, t, k, f

-z occurs after b, d, g, r, l, m, n, v and vowels

-*z occurs after s, z, š, č, ǰ

Generalize if possible. This may involve knowing some phonology, which we are not covering in this class.

-s occurs after voiceless non-sibilant consonants

-*z occurs after sibilants

-z occurs after voiced non-sibilant sounds

Patterns of Allomorphs: Complementary Distribution

Allomorphs generally follow a well-defined pattern. That is, you can usually predict which allomorph will occur based on the surrounding sounds or morphemes. Allomorphs of the same morpheme generally don't occur in the same environments. They are in *complementary distribution*. The environments they occur in are complements of each other.

Avoid these mistakes

When solving a morphology problem, make sure that the environments for the allomorphs are complementary. For example, it would be wrong to say that the environment for the allomorph -s is after consonants because -z and -*z occur after consonants too.

Also make sure that your environments are complete. For example, it would not be sufficient to say that -z occurs after vowels.

Stem Allomorphy

Allomorphy is not limited to affixes (suffixes, prefixes, and infixes). The stem of a word might also have allomorphs.

wolf	wolves
knife	knives
live	lives
wife	wives

Morphological vs Phonological Conditioning

Hypothesis 1: Use v before voiced sounds (phonologically conditioned)

Hypothesis 2: Use v before the plural suffix (morphologically conditioned).

You might want to consider the following data in order to decide between the two hypotheses: lifeless, wifeless, knifeless, wolfless. (Consider the pronciation, not the spelling. What is the next sound after the f?)

An Analogy for Morphemes and Allomorphs

H2O is like a morpheme. Steam, water, and ice are like allomorphs — they are different forms of H2O that occur in different environments.

Let's call the English plural morpheme -Z. The allomorphs -s, -z, and -*z are different forms of -Z that occur in different environments.

Allomorphs

Japanese

nomu	drinks
nonda	drank
yomu	reads
yonda	read (past)
kaku	writes

What are the allomorphs of the past tense morpheme?

What are the allomorphs of the non-past morpheme?

What are the allomorphs of the morpheme that means *drink*?

What are the allomorphs of the morpheme that means *read*?

State the environment for each the four sets of allomorphs.

Inflectional and Derivational Morphology

Inflectional Morphology: Deals with morphemes that have something to do with grammar such as agreement, tense, case marking. (See below.) Generally does not change part of speech or meaning.

Derivational Morphology: Can change part of speech or meaning. e.g., *happy* (adjective) vs. *happiness* (noun); *construct* (verb) vs. *construction* (noun); *child* (noun) vs. *childhood* (different noun).

Verb Inflection

- Tense
- Aspect
- Mood
- Voice
- Causative

Interlinear Glosses: Three-Line Example Format

Examples will be formatted like this in most things you will read. Please use this format in your homework or whenever you write about examples in a language other than English.

Spanish

(3) a. Juan corría. **Spanish sentence**
Juan run-3SG.IMP **English gloss**
Juan was running. **English translation**

b. Los niños corrían.
the children run-3PL.IMP
The children were running.

Three-Line Example Format

- The words in the Spanish sentence and the English gloss are lined up using tabs so you can see exactly which gloss goes with which Spanish word.
- A dash in the gloss indicates a morpheme boundary. Sometimes there will be dashes in the original language sentence. Sometimes the dashes will be only in the gloss.
- A dot in the gloss indicates more than one piece of information carried by the same morpheme. For example 3SG.IMP glosses a morpheme that indicates imperfective aspect and agreement with a third person singluar subject.
- Regular font is used for glossing the main meaning of a word. Small caps are used for glossing other morphemes.
- Glosses for inflectional morphemes are often abbreviated in a way that is obvious to linguists. If it's not obvious to you, ask.
- TeX macros are available for formatting three-line examples.

Agreement

Agreement morphemes indicate the person, number, gender, etc. of the subject or object.

Person and Number

First person singular	1SG	the speaker, e.g., English *I*
First person plural	1PL	the speaker and the hearer and/or other people, e.g., English *we*
Second person singular	2SG	the hearer, e.g., English *you*
Second person plural	2PL	multiple hearers or the hearer and other people, e.g., English *y'all*, *youse*, *yuns*
Third person singular	3SG	something other than the speaker or hearer, e.g., English *he*, *she*, *it*, *the book*, *that girl*
Third person plural	3PL	a group of things that does not include the speaker or the hearer, e.g., English *they*, *those books*, *the girls*

Fusional and Agglutinating Languages

In many European languages, particularly Germanic, Romance, and Slavic languages, agreement and tense tend to be fused into one morpheme. These are called **fusional** languages.

Agglutinating languages tend to have one meaning per morpheme.

Swahili, (data from *The Ohio State Language Files*)

(4) a. a-ta-ni-penda
3SGS-FUT-1SGO-like
S/he will like me.

b. u-ta-ni-penda
2SGS-FUT-1SGO-like
You will like me.

c. tu-ta-m-penda
1PLS-FUT-3SGO-like
We will like him.

Polysynthetic and Isolating Langauges

Polysynthetic languages can put together many nouns and verbs into one word. This example is from Anderson, page 151 in Shopen (ed.) Volume 3.

Greenlandic Eskimo

(5) iqalussuarniariartuqqusaagaluaqaagunnuuq
It is said that we have admittedly got a strict order to go out out fishing sharks.

In **isolating** languages each morpheme tends to be a separate word.

Chinese, (O'Grady and Dobrovolsky, *Contemporary Linguistics*, page 229)

(6) Ta chi fan le
he eat meal PAST
He ate the meal

Tense

Tense relates the time of an event to the time of speech or to another reference time.

s: time of speech
e: time of event
r: reference time

(7) a. I am talking.
`s = r = e`

b. I talked yesterday.
`e < s = r`

c. I will talk tomorrow.
`s = r > e`

d. At 12:00 I had already talked.
`e < r < s`

e. It was 12:00. She would talk in one hour.
`r < e < s`

Metrical Tense

Metrical tense measures how far the event is from the reference point.

Haya, (data from Schachter, page 10)

akaija	he came (earlier than a few days ago)
alaizile	he came (within the past few days)
yaija	he came (earlier today)
alaija	he will come (in the near future)
aliija	he will come (in the distant future)

Future and Non-Future

Takelma: From Chung and Timberlake, ‘Tense, Aspect, and Mood,’ in Shopen (ed.), Volume 3, page 204. (modified orthography)

(8) a. Yaná-t’e:
go.IRR-1SG.FUT
I will go.

b. Ya:n-t’e?
go.REAL-1SG.NONFUT
I went/am going/am about to go

Past and Non-Past

Yidiny: From Chung and Timberlake, page 205. (modified orthography)

(9) a. Ngung:rjiny minya nganydyi buga:ny
that.kind meat we eat.PAST
We ate that kind of meat.

b. Biri:nydya birji gundying
sea back return.NONPAST
I will return by sea.

c. Wanyi:ra mayi bugang?
what.kind fruit eat.NONPAST
What kind of fruit are you eating?

Aspect

Aspect describes an event with respect to a frame. The event may continue over the whole frame and include the frame (imperfective), or the event may be completed in the frame and be included in the frame (perfective).

English

(10) a. I was running (imperfective) when I saw him.

b. I ran (perfective/inceptive) when I saw him.

Spanish

corría (imperfective)	was running
corrió (perfective)	ran

In addition to closure (completion) of an event in a frame, the category of aspect also includes states vs activities, iteration, and duration.

Mood

Mood deals with what is real and not real. It includes meanings like possibility, necessity, obligation, permission, experiential (first hand knowledge), evidential (second hand knowledge), and quotative (attribute to another person), and is also related to the expression of counterfactual and non-counterfactual conditionals.
Indicative/realis mood generally expresses facts.
Subjunctive/irrealis mood generally expresses doubt, possibility, etc.

French, (from Byrne, Churchill, and Price, *A Comprehensive French Grammar*)

(11) a. Nous insistons
we insist-1pl.pres
pour que vous veniez nous voir.
that you-PL come-2PL.SUB us see-INF
We insist that you come to see us.

b. Vous venez nous voir.
You-PL come-2PL.IND us see-INF
You come to see us.

Tense, aspect, and mood are complex

- Each language has a different system of tense, aspect, and mood. They do not correspond one-to-one, so a particular tense in L1 may be translated into many different tenses/aspects/moods in L2. (Compare the tenses in English *if-then* sentences to the tenses of similar sentences in your language.)
- Within each language, tenses/aspects/moods have many different uses. The present tense in English can express present time, habitual aspect, or near future time.
- There is a lot of overlap between tenses, aspects, and moods. Past tense is related to completive aspect; perfective aspect of certain verbs is realted to inceptive aspect; future tense is realated to irrealis mood; present tense is realted to continuous aspect; moods of possibility and permission are hard to distinguish; etc.

Some terminology for tensed and tenseless verbs

- **Finite:** Finite verbs have a tense. The mood can be indicative or subjunctive. If a language has verb agreement, it is the finite verbs that agree with the subject or object.
- **Non-finite:** Non-finite verbs don't have tense. These include **infinitives** and **participles**. Infinitives typically don't show agreement. Participles may come under the heading of derivational morphology because participial verbs are more like nouns or adjectives. In particular, they may inflect like nouns or adjectives.

English non-finite verb forms

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(12) a. He breaks the glass.
(present tense, third person singular subject)

b. I want him to break (infinitive, no agreement) the glass.

c. The glass is broken (past participle).

d. Broken (adjective? participle?) glass is dangerous.

e. The glass is breaking (present participle.)

f. Breaking (noun? participle?) glass is fun.

Causative

Japanese (from Jordan, *Japanese: The Spoken Language*)

(13) a. Kodomo ga yasai o
children SUBJ vegetable OBJ
takusan tabe-ta.
a lot eat-PAST
The children ate a lot of vegetables.

b. Watasi wa kodomo ni
I TOP children DAT
yasai o takusan tabe-sase-ta.
vegetable OBJ a lot eat-CAUSE-PAST
I made the children eat a lot of vegetables.

Voice

". . . the role of the subject in the action expressed by the verb" (Schachter) e.g., active, passive.

Japanese, (from Jordan, *Japanese: The Spoken Language*)

(14) a. Sensei ga tomodati o
teacher SUBJ friend OBJ
yobi-masi-ta. **active**
call-FORMAL-PAST
The teacher called (my) friend.

b. Tomodati wa sensei ni
friend TOP teacher DAT
yob-are-masi-ta. **passive**
call-PASS-FORMAL-PAST
(My) friend was called by the teacher.

Passive Across Languages

Nitinaht, (Wakashan, British Columbia). From Perlmutter and Postal.

```
ch’ixwatsa?p ?a   ox    bowach
frighten     aux  case  deer

?aq ?oyoq Ralph.
the case  Ralph

‘‘The deer frightened Ralph.’’

ch’ixwatsa?ab’t  ?a  ox   Ralph
frighten-pass    aux case Ralph

?oxwit    bowach ?aq.
case-pass deer   the

‘‘Ralph was frightened by the deer.’’
```

Mandarin. From O'Grady et al.

```
Zhu laoshi    piye le wode kaoshi.
Zhu professor marked  my   test
‘‘Professor Zhu marked my test.’’

Wode kaoshi bei   Zhu laoshi    piye le.
my   test   prep. Zhu professor marked
‘‘My test was marked by Professor Zhu’’
```

Malagasy. Austronesian, Madagascar. From Perlmutter and Postal.

```
Nividy ny  vary  ho  an’ny ankizy
bought the rice  for the  children

ny  vehivavy.
the woman

‘‘The woman bought the rice
for the children.’’

Novidin’    ny  vehivavy
bought-pass the woman

no  an’ny ankizy   ny  vary.
for the   children the rice

‘‘The rice was bought
for the children by the woman.’’
```

Latin. From Perlmutter and Postal.

```
Magister    puero:s    laudat.
teacher-nom boys-acc   praise
‘‘The teacher praises the boys.’’

Pueri:    a:    magistro:   laudantur.
boys-nom  prep. teacher-abl praise-pass
‘‘The boys are praised by the teacher.’’

a:    magistro:   pueri:    laudantur.
prep. teacher-abl boys-nom  praise-pass
‘‘The boys are praised by the teacher.’’
```

Tzotzil, Mayan, Mexico. From O’Grady et al.

```
La’ sna’kan ti  vi˜nike ti  xpe’tule.
seated      the man     the Peter
‘‘Peter seated the man.’’

Ina’kanat  ti  vi˜nike yu?un ti  xpe’tule.
seat-pass  the man     prep. the Peter
‘‘The man was seated by Peter.’’
```

West Greenlandic Eskimo. From Perlmutter and Postal.

```
Gimmi-p  miiraq    kiivaa.
dog-erg  child-abs bite
‘‘The dog bit the child.’’

Miiraq    gimmi-mik  kiitsippuq.
child-abs dog-instr  bite-pass
‘‘A child has been bitten by a/the dog.’’
```

Icelandic, a Germanic language. From Zaenen and Maling.

```
Logreglan   tok  Siggu     fasta.
police-nom  took Sigga-acc fast-acc
‘‘The police arrested Sigga.’’

Sigga     var tekin fost     af logreglunni.
Sigga-nom was taken fast-nom p. police-the-d
‘‘Sigga was arrested by the police.’’
```

Cross Linguistic Generalization

If all of the constructions illustrated above are so different, why do we call them all passives? In other words, what do all of the passives have in common? Is it possible to explain what they have in common in terms of verb morphology, word order or case marking?

Uses of Passive

- Focus on a participant other than the agent.
- Make the sentence impersonal (doesn't matter who the agent is). (Some languages have passives of intransitive verbs.)
- Other uses, e.g., adversitive in Japanese.