Morpho-syntax

February 20 and 22, 2017
Core Arguments

• The core arguments of a verb are Actor, Undergoer, and Recipient:

• The student gave books to the teacher.
  Actor undergoer recipient

• These are typically expressed as subject, object, and indirect object.
Transitive, Intransitive, Ditransitive

• Transitive (actor and undergoer)
  – The student saw the teacher.

• Intransitive (actor)
  – The student studied.

• Intransitive (undergoer)
  – The student disappeared.

• Ditransitive (actor, undergoer, and recipient)
  – The student gave books to the teacher.
Distinguishing Actor and Undergoer (Grammatical Encoding)

- The student bit the dog
- The dog bit the student
Grammatical Encoding

- Word order
- Case Marking
- Agreement with verb
We looked at three kinds of case marking
We invented the case marker “gwa” as a combination of “ga” (nominative) and “wa” (topic).
Japanese Case Marking

- Student gwa teacher wo saw.
- Student gwa returned.
- Student gwa teacher ni book wo gave.

- “Gwa” is nominative
- “Wo” is accusative
Basque (Ergative-Absolutive)

- zumari
- etxera
- go
- part

- lauren
- indak
- ikusi
- zen

- kasluak
- indak
- ikusi
- zen

- kasluak
- indak
- ikusi
- zen

- kasluak
- indak
- ikusi
- zen

- liburu
- izan
- don

- erako
- edo

- el estudiante
- vió al
- profesor
- (teacher)

- el estudiante
- ve el
- libro
- (book)
Basque Case Marking

• Student-the-k teacher-the saw(sg-sg)
• Student-the returned
• Student-the-k teacher-the-ri book-the gave(sg-sg-sg)

• “-k” is ergative
• Ø is absolutive

• The verb agrees with the subject, object, and indirect object.
Hindi (Ergative in the past tense and differential object marking)
Additional Properties of Basic Sentences

- Adpositions and oblique cases
- Negation
- Tense
Oblique (not core argument)

• Other arguments of a verb are oblique:
  – I thought about linguistics.
  – I loaded the truck with hay.
  – I loaded hay onto the truck.
  – I ate ice cream with a spoon.
  – I walked with my friend.
  – I gave the speech without anger.
  – I ran to school from home along the river.
  – I slept in my bed during the night.
  – I sold a book for ten dollars.
Exponence of oblique marking

- Adposition
  - Preposition
  - Postposition
- Lots of case markers
  - Instrumental, illative, allative, etc.
- Adposition plus case marker
  - To (preposition) him (case)
  - Of (preposition) mine (case)
- Serial verbs or co-verbs
  - Take knife cut bread = cut the bread with a knife
  - Run cross field = run across field
TAM: Tense, Aspect, Mood
Tense

• Present
  – Happening at the time of speech

• Past
  – Happened before the time of speech

• Future
  – Will happen after the time of speech
Aspect

- Perfective
  - I ran when I saw him.

- Imperfective
  - I was running when I saw him.

- Confusing terminology: “perfective” means something different from “perfect” in linguistics.
Mood

• Real
  – The student read a book

• Unreal
  – Conditional
    • If the student read a book...
  – Subjunctive
    • I recommend that he go
  – Imperative
    • Go!
TAM: languages blur the distinction between tense, aspect, and mood

• Things in the past and the present are real.
• Things in the future are unreal.
• Things in the past are more finished (perfective).
• Things in the present and future are less finished (imperfective).
Two-Tense systems

• Past-Nonpast (e.g., Japanese)
  – May actually be a perfective-nonperfective

• Future-Nonfuture
  – May actually be real-unreal
Multi-tense systems

• Mythical past
  – Used in a creation story
• Remote past
• Recent past
  – I just saw her.
• Present
• Near future
  – I’m about to see her.
• Distant future
Varieties and Exponence of TAM

• http://wals.info/feature/21B#2/25.5/151.9
• http://wals.info/feature/66A#2/25.5/148.4
• http://wals.info/feature/67A#2/25.5/148.4
• http://wals.info/feature/69A#2/18.0/152.9
Adding a reference point
Perfect (not Perfective)

• Bertrand Russell
  – S: Time of speech
  – E: Time of the event
  – R: A reference point

• Past perfect:
  – At 10am, I had (already) seen her.
    • The reference point (10am) is before the time of speech and the event (seeing her) is before the reference point.

• Future perfect:
  – At 3pm, I will have already seen her.
    • The reference point (3pm) is after the time of speech and the event (seeing her) is before the reference point.
Beware of English

• Don’t copy the morphology or syntax of English.
• Think about what it means and then create your own syntax and morphology.
Beware of the English Present Perfect

• It is not present and it is not perfect
• What is it?
  – I have just eaten.
    • recent past
  – I have eaten breakfast.
    • Past with some present relevance
  – I have been to Paris.
    • Experiential past
• Look up “English present perfect usage” to see more.
Beware of English

• If *I go*, I will see him.
  – Other languages say “If I will go, I will see him”

• If *I had gone*, I would have seen him
  – This has a special meaning. It is counterfactual; I did not go.

• He was going tomorrow.
  – What does this mean?

• He said he was going tomorrow.
  – *Sequence of tenses*

• He would go tomorrow

• He said he would go tomorrow
Beware of English

• English tenses are made up of
  – Inflected verbs
    • Saw
    • sees
  – Auxiliary verbs
    • will
    • have
    • be
    • do
  – Participles
    • seen
    • seeing
What about Chinese?

- Chinese has a series of Tense-Aspect particles that do not translate directly into English.
- It is not necessary to have one in each sentence.
- This is mind boggling to Europeans who’s sentences must have a “finite” verb or auxiliary verb:
  - *She seeing, *She to see,
  - She seen (Past tense in some dialects, not good in others)
  - She sees
  - She saw
  - She is seeing
  - She has seen
  - She does see
But other languages have obligatory things that we don’t express

• Inclusive and exclusive first person plural
• Singular and plural second person
• Evidentiality (obligatorily marked in Quechua)
  – first hand: She read the book. I saw her read it.
  – hearsay: They say she read the book.
  – concluded from evidence: She must have read the book. She knew the story.
Negation

- I am reading
- I am not reading
- I read
- I do not read
- Some students left
- No students left
Linguistic Exponence of Negation
World Atlas of Language Structures
http://wals.info/chapter/143

- Separate word
- Morpheme attached to verb
- Obligatory double negative
- Optional double negative
- Multiple strategies

Example: Multiple negation strategies depending on tense

(16) Maasai (Tucker and Mpaayei 1955: 67)

a. eítú a-rany.

\[ \text{NEG} \quad 1\text{sg-sing} \]

‘I did not sing.’ (Tucker and Mpaayei 1955: 67)

b. m-a-rany.

\[ \text{NEG-1sg-sing} \]

‘I do not sing.’ (Tucker and Mpaayei 1955: 67)

Also Wolof (Senegal), Armenian
Negative sentences can have different morpho-syntax

http://wals.info/chapter/113

(4) Finnish (personal knowledge)

a. tule-n  
   come-1sg
   ‘I am coming.’

b. e-n     tule
   NEG-1SG come.CONNEG.PRES
   ‘I am not coming.’

c. tul-i-n
   come-PST-1SG
   ‘I came.’

d. e-n     tul-lut
   NEG-1SG come-PST.PTCP
   ‘I did not come.’
See also

• [http://wals.info/feature](http://wals.info/feature)
  
  – Type “negation” in the search box

• My favorite negation sentence:
  
  – It *ain’t no* chicken *can’t* get into *no* coop.
    
    • Can mean no chicken can get into a coop
Negative Polarity Items

• *Any* people are here.
• Some people are here.
• I don’t think *any* people are here.
• Are any people here?
• I doubt that any people are here?
Scope ambiguity with quantifiers and negation

• All doors will not be open.
  – This is said regularly on Amtrak.
• It is not the case that all doors will be open.
  – Go to the door that the conductor directs you to.
• For all doors, it is the case that they will not be open.
  – How can I get off the train?
Special Sentence Types

• Copula
• PEL: Possession, Existence, Location
• Question
• Command
• Modality
• Passive voice
• Comparison
Copula

• Identity
  – Clark Kent is superman.
  – She is the teacher.

• Role
  – She is a teacher.

• Definition
  – A square is a four sided equi-angled polygon.

• Permanent property
  – She is tall

• Temporary property
  – She is in Pittsburgh
Zero copula languages

• All tenses
• Some tenses

• She teacher
PEL

PEL language
• Possession:
  – A book is to me
• Existence
  – A book is
• Location
  – The book is on the table

English
• I have a book
• There is a book
• A book exists
• The book is on the table
• There is a book on the table
<table>
<thead>
<tr>
<th>English</th>
<th>Hebrew</th>
<th>Turkish</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a book on the table.</td>
<td>Yesh sefer al ha shulxan. (There is a book on the table.)</td>
<td>Kösede bir kahve var. (There is a book on the corner.)</td>
<td>Jest kniga na stolje. (There is a book on the table.)</td>
</tr>
<tr>
<td>There isn’t a book on the table.</td>
<td>Eyn sefer al ha shulxan. (There is not a book on the table.)</td>
<td>Kösede bir kahve yok. (There is not a book on the corner)</td>
<td>Njet knigi na stolje. (There is not a book on the table.)</td>
</tr>
<tr>
<td>There was a book on the table.</td>
<td>Haya sefer al ha shulxan. (There was a book on the table.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There wasn’t a book on the table.</td>
<td>Lo haya sefer al ha shulxan. (There was not a book on the table.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Questions

• Closed (yes-no)
• Open ("wh")
Closed questions

• Don’t copy English’s crazy pattern
  – If there is no auxiliary verb, add “do”
    • You eat sushi → You do eat sushi
  – Move “do” or other auxiliary verb to the left of the subject.
    • Are you eating sushi?
    • Do you eat sushi?
  – If negation is contracted, move it with the auxiliary verb
    • Don’t you eat sushi?
    • Aren’t you eating sushi?
    • Haven’t you eaten sushi?
  – Otherwise, leave negation after the subject
    • Have you not eaten sushi?
Other ways to make closed questions

• A question particle like Mandarin “ma” or Japanese “ka”.
• Intonation
• Put a focus marker on the noun that is really in question.
  – You-foc wash dishes?
    • Was it you who washed the dishes?
  – You wash-foc dishes?
    • Is what you did washing dishes?
  – You wash dishes-?
    • Was it dishes that you washed?
Closed questions: what answer do you expect?

• Have you washed the dishes?
• Haven’t you washed the dishes?

• Expect the answer to be “yes” or “no”?
Open questions

• Who, what, where, when, why, how, which X, whose X

• In situ
  – You ate what?

• Displaced
  – Which sushi you ate?

• Resumptive pronoun
  – Whose sushi you ate it?
Fillers and gaps

• Who you talk to ___?
  – Who is the filler
  – ___ is the gap
• To whom you talk ___?
• What you eat ___?
• Who you try to talk to ___?
• People who have taken a syntax class know a lot about fillers and gaps.
Open Questions
Mixed strategies

• Displacement for Subject and Object, but resumptive pronoun for everything else
  – What you ate?
  – Who ate sushi?
  – Who you talked to her?
  – Who you talked to her sister?
Modality

• Epistemic (status of knowledge)
  – Certain
    • She definitely read the book.
  – Uncertain
    • She *might* have read the book.
      – Auxiliary verb
    • She *probably* read the book.
      – Adverb
    • She *is likely* to have read the book.
      – Adjective
    • She *seems* to have read the book.
      – Verb
Modality

• Deontic (Obligation)
  – I require that you go.
  – You should go.
  – Not going won’t do
    • Paraphrasing Japanese
  – You are allowed to go.
  – I permit you to go.
  – I let you go.
Modality

• Ability
  – You are able to read the book.
  – You can play the piano.
Exponence of Modality

• In human languages, modality can be expressed with almost any part of speech.
• Consider also that many human languages have “potential” (ability) as an affix:
  – eat-can = able to eat
What is passive voice?

• Many students have read the book.
• The book has been read by many students.

• A change in alignment between semantic roles (actor and undergoer) and grammatical relations (subject and object).
Active Voice

• The actor is the subject.
• The actor has the linear position, case marking, and/or verb agreement of a subject.
• She has eaten them.
  – “She” has nominative case
  – “She” is to the left of the verb
  – The verb is “has”, agreeing with “she”
Passive voice

• The undergoer is the subject.
• The undergoer has the linear position, case marking, and/or verb agreement of the subject.
  – They have been eaten by her
  – “They” is to the left of the verb
  – “They” has nominative case
  – The verb is “have”, agreeing with “they”
Exponence of passive voice

• English uses a system of auxiliary verbs and past participles.

• Other languages use an affix.
  – person-nom eat cookie-acc
  – cookie-nom eat-pass person-oblique
  • The oblique case or adposition can be “by”, “with”, “to”, etc. It isn’t always “by”.
If you are interested, ask me about antipassive in Ergative languages
Comparison

• X is more Y than Z
  – Z is the standard against which X is compared
  – Y is the scale on which X and Z are compared
  – There are markers on Y (more) and Z (than) in English. In many languages there is no marker on Y.
    • X than-Z is Y
Try some creative things for comparison

• X is Y compared to Z
• X is Y, exceeds/surpasses Z