Language Typology

There are an estimated7,000 languages in the world (only ~half have been studied)

We are pretty sure that only Anatomically Modern Humans had/have language (the physical and cognitive prerequisites)

We are also pretty sure that AMH migrated out of Africa and spread around the globe

People took their language(s) with them

So it's reasonable to assume that all languages share features in common, even though they differ significantly on the surface

Language typology

If Language is shared by all humans, what are the common features, and what are the differences?

Assumptions made by most linguists: There are universals

Some more specific than others

Each language picks subset of properties from the universal inventory, in a way that “makes sense” and reflects a pattern (recall the phoneme tables for English, Telegu)

There are also universal unilateral implications (e.g., if a language has nasal vowels, it has oral vowels)

Language typology

But the superficial differences are significant

Look for broad features

“dip-switches”/parameters

Linguists try to classify languages and assign them to “types”

Language typology

Languages can be "typed" in different ways, such as:

(1) historically/"genetically": languages are related, share a common ancestral language (more on Wednesday)

(2) Based on their morphology: how are words built?

(3) Based on their syntax: how do morphemes build a sentence?

Language typology

Languages can be “typed” partly based on their morphology

Several broad distinctions relevant to linguistic analysis

First broad cut

Analytic vs. synthetic languages

Analytic languages

Little or no inflection

Sentences consist of sequences of words in a “base” of “dictionary” form plus function words

Word order determines meaning

Extreme example: “foreigner talk”

Yesterday I make mistake

This pizza not good

Analytic (or “isolating”) languages

Every morpheme is a word (words are monomorphemic)

no inflectional or derivational affixes

Chinese:

I plural yesterday play piano past

“we played the piano yesterday”

我们昨天弹了钢琴

English is just a bit less “isolating”

Some words are polymorphemic

Some morphemes attach to/change forms

Inflection:

played = play past

playing = play progressive

Etc.

English derivational morpholoy

Prefixes (*re-, -un*), suffixes (*-ion, -al*)

"Zero" morphology for many noun-verb pairs:

carpet, glue, drink, buy, wonder, love,…

Productive!

English—poor derivational morphology

John sees Mary vs. *Mary sees John*

No morphology to distinguish subject and object

"Poor" morphology means that word order usually determines sentence meaning

Yiddish movement/topicalization (object in subject position)

BAGELS I like!

THIS I don't know.

Restricted to specific contexts

Synthetic languages

Rich(er) in morphology

Morphology, not (only) word order, allows speaker to encode relations among constituents and determines the meaning of phrases and sentences

Natural Languages

Synthetic languages can indicate "who does what to whom" with word order, others with inflectional endings

(1) the cat scratches the dog

(2) the dog scratches the cat

English Rule: SVO

Subject tends to be the Agent, so (1) and (2) have different meanings

Highly inflected languages

Latin relies not on word order but on inflectional endings that indicate Agent and Patient

*Can**is** catt**um** scalpit* (the dog scratches the cat)

*Can**em** catt**us** scalpit* (the cat scratches the dog)

Fusion

In “fusional” synthetic languages, the affixes is not merely tagged on but “fuse” with the stem

Another sound can result/stem changes

E.g. Latin

os (mouth) *oris* (of the mouth, genitive)

Japanese

Japanese has postpositions that follow the nouns, indicating the noun's grammatical function

(1) Taro-ga hon-o katta

Taro-subject book-object bought

(2) Hon-o Taro-wa katta

Same meaning (different focus in 2: It's TARO that bought a book)

Scrambling

Languages with rich morphology can “scramble” the constituents of a sentence

Morphology indicates function (subject vs. object etc.)

Walpiri (Australia) is a scrambling language

S	Aux	O	V
Ngarrka-ngku	ka	wawirri	pnati-rni
man-Erg	Aux	kangaroo	spear-NonP

'The man is spearing the kangaroo.'

O	Aux	V	S
Wawirri	ka	panti-rni	ngarrka-ngku

V	Aux	S	O
Panti-rni	ka	ngarrka-ngku	wawirri

Polysynthetic languages

Several stems and affixes merge, usually into a sentence that is "headed" by a verb

Subject, object are inflections on the verb

Many Native American languages are polysynthetic

Greenlandic:

aalisa-ut-issiar-si-vu-nga

fish-INSTR.N-SUITABLE-GET-IND-1SG

"I'm getting something suited as a fishing-line"

“Eskimo” snow words (Yup’ik)

A. Woodbury (1991)

Possibly 15 different “words”, distinguishing snow on the ground/in the air/drifting/clinging/…

E.g.: Drifting particles
natquik 'drifting snow’
natqu(v)igte- 'for snow/etc. to drift along ground’

Blizzard, snowstorm:
pirta 'blizzard, snowstorm'
pircir- 'to blizzard'
pirtuk 'blizzard, snowstorm'

Agglutinating languages

Agglutinating language (Finnish, Hungarian, Basque, Bantu, Georgian…)

"glue" (often multiple) function morphemes onto content word

This results in (very) long strings

Turkish example

Courtesy of Zeytun West

Güç

Güçsüz

Güçsüzleş (-mek)

Güçsüzleştir (-mek)

Güçsüzleştirici

Güçsüzleştiricileş (-mek)

Güçsüzleştiricileştir (-mek)

Güçsüzleştiricileştiriver (-mek)

Güçsüzleştiricileştiriverebil (-mek)

Güçsüzleştiricileştiriveremeyebil (-mek)

Güçsüzleştiricileştiriveremeyebilecek

Güçsüzleştiricileştiriveremeyebilecekler

Powerful

Power

Powerless (Weak/(without power)

(To) become powerless

(To) make one powerless

Maker of powerless ones

(To) become a maker of powerless ones

(To) make one a maker of powerless ones

(To) easily/quickly make one a maker of powerless ones

(To) be able to make one easily/quickly a maker of powerless ones

Not (to) be able to make one easily/quickly a maker of powerless ones

One who is not able to make one easily/quickly a maker of powerless ones

Those who are not able to make one easily/quickly a maker of powerless ones

Roots and derivations

Some Afroasiatic languages (Arabic, Hebrew, Tigre, Amharic,…) build words from roots

Often triconsonantal but some with two or four consonants

Roots are not lexemes but carry meaning

Roots are modified with infixes, prefixes, suffixes, circumfixes

Specific patterns of affixation yields meanings that are systematically related in meaning

Many patterns!

Amharic words based on the root /sbr/

(M. Gasser)

ይሰብራል	*yi-**s**ə**br**-al*	'he breaks'
ይሰበራል	*yi-**ss**ə**bb**ə**r**-al*	'he/it is broken'
ይሰባበራሉ	*yi-**ss**ə**b**a**bb**ə**r**-allu*	'they break one another'
መስበር	*mə-**sbə**r*	'to break'
ሰባሪ	***sə**ba**r**-i*	'breaker'

Example: Arabic morphology
Root: /ktb/

he wrote	*katab-a* (v.)	كتب
he corresponded	*kaatab-a* (v.)	كاتَبَ
it was written	*kutib-a* (v.)	كُتِبَ
book	*kitaab* (n.)	كِتاب
books	*kutub* (n.)	كُتُب
writer; (adj.) writing	*kaatib* (n.)	كاتِب
writers	*kuttaab* (n.)	كُتّاب
write! (2 m.s.)	*uktub*! (v.)	اُكْتُبْ!

Sometimes the vowels are written (with diacritics), sometimes they are not

Native speakers can predict vowelized (full) forms

A linguist's job

Collect, examine words in the target language

Identify root/stem and affixes (pay attention to possible allomorphy)

Identify their meanings and the meaning of the whole word

Formulate the rules that determine word formation

Assign language to a "type" based on

--how morphemes make words

--how words compose into sentences

BUT: **languages often don't fit neatly into one type**

Typology is independent of genetic relationship

e.g., Bantu, Basque and Georgian are agglutinative, but they do not belong to the same language family (no historical relation)

Walpiri and Japanese scramble but are genetically unrelated

Clicker question (hard but let's try)

Are the following data from a language that forms words by

(A) not changing the morphology (isolating, like Chinese)

(B) Agglutination (like Turkish, Finnish)

(C) inflection/fusion (like English or Latin)

(D) adding vowels to a consonantal root (like Amharic, Hebrew, Arabic)

Singular	Meaning	Plural
ləbs	'garment'	ālbās
faras	'horse'	āfrās
bet	'house'	ābyāt
tzom	'fast'	ātzwām
səm	'name'	āsmāt
hāgar	'country'	āhgur
rəʾs	'head'	arʾəst
gabr	'servant, slave'	āgbərt
bagʾ	'sheep'	ābāgəʾ
gānen	'devil'	āgānənt
əzn	'ear'	ā'zan
əgr	'foot'	ā'gar

(D) Is correct

This is Ge’ez, a language of Ethiopia used mainly for liturgical purposes.