

Lgcs 101: Historical Linguistics. Lecture Notes. Thurs 6 Oct 2011.

1. From last time

- Types of syntactic change: borrowing; grammaticalization; reanalysis.
- Exercise 6.1.

2. Change in word order.

Languages generally have a basic, or unmarked word order: In English, it's SVO. OSV is possible, but marked:

- (1) I like this.
- (2) THIS, I like.

Over time, languages can change basic word order type. For example, Old English was SOV:

- (3) he Gode þancode
'He thanked God.'

Interestingly, it has been claimed that when a language undergoes a change in word order, a number of other changes appear to come along with it.

To see this, first some background on word order typology.

Breakdown for word order across languages:

- (4) SOV (~45%): Japanese, Turkish, Basque, Quechua.
Hasan œkyz-y al-dî. (Turkish)
Hasan ox-Acc bought
'Hasan bought the Ox.'
- (5) SVO (~35%): English, Swahili.
I like this.
- (6) VSO (~9%): Welsh, Irish, classical Arabic, early biblical Hebrew.
Lladdodd y ddraig y dyn (Welsh)
killed the dragon the man
'The dragon killed the man.'

- (7) VOS (~2%): Malagasy (Madagascar).
Nahita ny mpianatra ny vehivavy. (Malagasy)
Saw the student the woman
'The woman saw the student.'
- (8) OVS (~1%): Hixkaryana (Amazon basin).
Kana jan+mno bñrjekomo. (Hixkaryana)
fish caught boy
'The boy caught a fish.'
- (9) OSV (~1%): Apuriña.
Anana nota apa. (Apurina)
pineapple I fetch
'I fetch a pineapple.'

Greenberg (1963) observed that VO languages tend to have certain characteristics, while OV languages show a different set of characteristics:

(10)	<u>VO languages</u>	<u>OV languages</u>
	1. VO	1. OV
	2. Aux V	2. V Aux
	3. N Genitive	3. Genitive N
	4. P NP	4. NP P
	5. N Adj	5. Adj N
	6. N Relative clause	6. Relative clause N
	7. No Case-marking	7. Case-marking

→What syntactic property do (1)-(4) appear to reflect? (Headedness)

Most languages don't fit perfectly into one type or the other, but some languages are harmonic across categories: Japanese and French, for example. English is VO but has pre-nominal adjectives and genitives, and Classical Latin and Farsi are OV but prepositional. For other languages it is unclear whether they are VO or OV.

The claim: There is a tendency for languages to change from one harmonic type to another over time (thousands of years). The result is that what might appear to be unrelated developments in fact are converging on shift in word order type.

For example, Li and Thompson (1974) track the following changes in Chinese:

- (i) Records from the 1st mill. BC indicate Archaic Chinese is VO.
- (ii) In the early centuries AD:
 - Original V + PP becomes PP + V;
 - Original VO is replaced by *ba* O V (pp. 181-182);
 - Certain nouns are reduced to postpositions, some of which have reduced to case markers.

All of these changes conspire to make Chinese a more OV harmonic.

Cf. English, which has shifted from OV to more VO harmonic.

One problem with this idea is that few languages are actually consistently harmonic.

Further, it raises the questions of where in the grammar pressure for cross-category harmony would come from.

Interestingly, in independent work, it has been argued that mixed headed languages are difficult to learn. Christiansen and Devlin (1997) showed that a simple neural network has more trouble learning an artificial grammar that is inconsistent in headedness, vs. one that is consistent. They suggest that “only languages that are easy to learn should proliferate.”

In a related proposal, Kuno (1974) argues that cross-category harmony reduces processing complexity. Center-embedded constructions are well-known to be difficult to process:

- (11) a. Animals eat.
- b. Animals animals eat eat.
- c. Animals animals animals eat eat eat.

Kuno shows that in SOV languages, there would be many more cases of center embedding with post-nominal relative clauses. Thus, easy to comprehend in Japanese:

- (12) Neko-ga oikaketa nezumi-ga tabeta cheese-wa kusatte ita.
 cat chased mouse ate cheese rotten was
 ‘The cheese the rat the cat chased ate was rotten.’

Difficult to comprehend in Japanese:

- (13) John-ga Mary-ga Jane-ga aisite iru syoonen-ni kaita tegami-o yonda.
 John Mary Jane loving is boy wrote letter read
 ‘John read the letter that Mary wrote to the boy that Jane was in love with.’

Thus, the tendency toward harmony may be driven by a pressure to minimize center embedding!

References

- Christiansen, M. and J. Devlin. 1997. Recursive Inconsistencies Are Hard to Learn: A Connectionist Perspective on Universal Word Order Correlations. *Proceedings of the 19th Annual Conference of the Cognitive Science Society*. Lawrence Erlbaum Associates: New Jersey.
- Kuno, S. 1974. The Position of Relative Clauses and Conjunctions. *Linguistic Inquiry* 5.

Exercise 6.1.

(a) Tongan is ergative, with ergative case-marker 'e.

(14) *Na'e fafangu kinautolu 'e Sione.*
 Past awaken them Erg John
 'John awakened them.'

(15) *Ne'e fafangu-na au 'e he nanamu 'o e kakalá*
 Past awaken-Cia me Erg the smell of the flower
 'The smell of the flower awakened me.'

(c) Samoan is ergative, with ergative case-marker e.

(16) *Sā su'e(-ina) a'u e le fānau a Fo'isia.*
 Past search(-Cia) me Erg the children of Fo'isia
 'The children of Fo'isia were looking for me.'

(d) Maori is not ergative.

Active:

(17) *Ka whana te hōiho i a Hōne.*
 Tense kick the horse Acc Prop John
 'The horse kicked John.'

Passive (more frequent than active):

(18) *Ka whana-ia a Hōne e te hōiho.*
 Tense kick-Cia Prop John by the horse
 'John was kicked by the horse.'

3. PIE review

What is the phonemic inventory for PIE, so far?

What is a centum language? What is a satem language?

The PIE word *g^hostis corresponds to Latin *hostis* 'enemy' and English *guest*. What is a plausible meaning that the PIE word could have had that would account for the different meanings in Latin and English?

4. Sound change review

Considering the data below, what sound changes occurred between Proto-Slavic and Bulgarian? (The symbol over a vowel indicates that it is short.)

Indicate any crucial orderings in which the changes must have applied, and apply these rules to the Proto-Slavic word for 'near', [ʒeʒika] to show how the Bulgarian form, [bliskə], evolved. (From *Contemporary Linguistics*, 5th Edition).

	<i>Proto-Slavic</i>	<i>Bulgarian</i>	
(19)	gladūka	glatkə	'smooth'
	kratūka	kratkə	'short'
	blizūka	bliskə	'near'
	ʒeʒika	ʒɛfkə	'scorching'
	lovūka	lofkə	'adroit'
	gorika	gorkə	'bitter'

Specify the sound changes between Proto-Quechua and Tena:

	Proto-Quechua	Tena	
(20)	tʃumpi	tʃumbi	'belt'
	timpu	timbu	'boil'
	nutku	nuktu	'brains'
	akla	agla	'choose'
	wakli	wagli	'damage'
	utka	ukta	'fast'
	kunka	kunga	'neck'
	ljantu	ljandu	'shade'
	mutku	mukti	'smell'
	pukju	pugju	'spring'
	inti	indi	'sun'
	sanku	sangu	'thick'
	hampatu	hambatu	'toad'