INTD0111A/ARBC0111A

The Unity and Diversity of Human Language

Lecture #17
Nov 9th, 2006

Announcements

- In-class presentation for your LAP? Let me know.
- Each group should consider scheduling a meeting with me once you know enough about the LAP language to discuss how things are going and make sure you're on the right track as far as the project's goals and methodology are concerned.
- Assignment #3 will be posted later this week (ideally by tomorrow evening, or Saturday morning at the very latest). Consequently, due date is extended to Tuesday Nov 21.

Transition from last class

- We have seen *how* a language can change lexically, semantically, morphologically, syntactically, and phonologically.
- We have also seen *how* the changes can become so substantial to the point where one language, over time, gives rise to multiple related languages.
- We have also seen *how* historical linguists used the comparative method to reconstruct proto-forms in a proto-language from a set of cognates.

The "why" question

- So, we have seen some "how's". Can we discuss some "why's" now?

- The big "why" question is: Why do languages change?

Causes for language change: Technology, contact, social pressure

- Some changes are easy to understand: Creating new words to name new objects. Or borrowing for the same purpose. Or language contact.

- We have already seen an example of how social pressure can lead to certain linguistic changes (the loss of postvocalic [r] in some parts of the east coast in the US).

Causes for language change: Ease of articulation

- Some sound changes might be driven by a desire for *ease of articulation*, e.g., assimilation of vowels preceding nasal consonants.
- French nasalized vowels originated from nasal assimilation followed by word-final consonant deletion: [bɔn] → [bɔ̃n] → [bɔ̃].
- But how do we account for the Great Vowel Shift or the Germanic consonant shift in terms of least articulatory effort?

Causes for language change: Naturalness

- Certain patterns of sound change typically occur, though not others, suggesting that change might be in the direction of "*naturalness*".
- For example, the CV syllable is claimed to be the most natural of all syllables.
- As it turns out, CV is indeed universal: Every human language has it.

Causes for language change: Naturalness

- Sound changes in syllable structure are typically in the direction of the CV syllable, either through consonant deletion or vowel epenthesis:

Consonant deletion:

OE "cnēow" → ModE "knee" [ni:]

Old Spanish "non" → Spanish "no"

Vowel epenthesis:

Italian "croce" → Sicilian "kiruci" "cross"

Causes for language change: Naturalness

- There is also evidence from language acquisition for the naturalness of the CV syllable: Children typically simplify longer syllables to change them into CV syllables:

"tree" [tri:] → [ti:]

"dog" [dɑg] → [dɑ]

Causes for language change: Analogy

- Some changes might be the result of *analogy*: the desire to reduce the number of exceptional or irregular forms in the language as much as possible:

sweep-swept → sweep-sweeped

wake-woke → wake-waked

But some changes are harder to explain than others

- Why would a language change its basic word order, the way it forms questions, the way it forms negation, verb placement, subject placement, its case and agreement system, its polysynthesis status, etc.?

But some changes are harder to explain than others

- And why are changes systematic and subject to the same constraints that govern cross-linguistic variation?
- So, phonological changes are subject to the same phonological rules that we find in human languages. And a syntactic change in a language never takes the language beyond the limits of what is possible in human languages in general.

But some changes are harder to explain than others

- The "why" question is obviously hard, and 19th century historical linguists felt sometimes the pressure to provide an answer, but only in ways that we cannot accept today.

Warning: This is *not* an explanation!

- So, Grimm explained the law of consonant shifts as

    "connected with the German's mighty progress and struggle for freedom … the invincible German race was becoming ever more vividly aware of the unstoppability of its advance into all parts of Europe … How could such a forceful mobilization of the race have failed to stir up its language at the same time, jolting it out of its traditional rut and exalting it? Does there not lie a certain courage and pride in the strengthening of voiced stop into voiceless stop and voiceless stop into fricative?"

So, …

Can we do better?

A view from the "parametric" window

- If language change is systematic, not just within the same language, but also across different languages, and if change never takes a language outside the confines of what is a "possible human language", then it makes sense that language change is actually regulated by the same constraints that regulate cross-linguistic diversity in general.
- That is: If languages differ due to selecting different parametric settings, then a language change may simply be the result of a change in the language's parametric settings.

A view from the "parametric" window

- Thus, under the principles and parameters framework, what changes is a mental grammar, an *I-language*, to use the term coined by Chomsky, and frequently used by Baker, where "*I*" stands for *intensional*, *individual* and *internal*.
- I-language is typically distinguished from *E-language*, a collection of actual utterances, texts, corpora, of a particular language, where "*E*" stands for *extensional* and *external (to the mind)*.

I-language vs. E-language

- Given the distinction between I-language and E-language, it follows that there is actually no such thing as a "collective" grammar of English.

- Rather, there are millions of individuals whose internalized grammars generate the body of what we informally refer to as "English".

- If it helps, think of the "French liver", the "Irish wit", or the "Egyptian humor". Do these "actually" exist?

I-language vs. E-language

- The distinction between I-language and E-language may help us understand why people disagree on who causes language change: adults or children?
- In terms of E-language, of course the answer is adults. We have seen a lot of examples of innovations introduced by adults in their language.
- But in terms of I-language, the answer to the question is not as clear. Change in usage does not necessarily entail change in one's mental grammar. Most of the innovations used by adults may be, and in the majority of cases are, used consciously (remember "*whom*", or "*It's I*"?).

Changes in the PLD

- But linguistic innovations are important for biological grammars indirectly: they constitute changes to the primary linguistic data (PLD), the input experience for the next generation of children acquiring the language.
- Now, if such changes are "robust" or "salient" enough in the PLD, then the child will end up with a grammar different from that of her parents, producing utterances that will in turn affect the PLD of others learning the language. And so on and so forth.

Language change as parameter re-setting

- Why would children decide to change the parametric settings of their language?
- Well, it can't be that two-year olds are thinking "*Children of the speech community, Unite, and let's revolt against the adults' grammars*."
- There must be a "trigger" in the primary linguistic data (PLD) then that makes children set a parameter differently from its setting in the adult grammar, thereby giving rise to a change in the language.

Interim summary

- Thinking of language change in terms of I-language thus entails that change in a language actually happens to individuals who then spread it to the rest of the population.
- Since I-language arises in the mind of the speakers in their childhood, it follows that it must be children who actually initiate language change, which then spreads through the population.
- In what follows we look at some examples of syntactic change as explained by the parametric approach

Change of word order in English

- Baker (chap. 7) discusses change of word order from SOV in Old English to SVO in Middle and Modern English.
- As we mentioned last time, OE had sentences like (a) below (using ModE words simply for convenience):

   a. *The man the dog bit*.

Change of word order in English

- But OE also developed a stylistic rule such that the verb will come before the subject if the sentence is introduced by a conjunction like "and" or a transition word like "then":

   b. *and bit the man the dog*
- Suppose the occurrence of this type of sentence becomes really frequent in the PLD. What would the child infer about word order in her language?
- "Hmm, is my language SOV or SVO?"

Change of word order in English

- Well, the sentence in (b) could be derived either from
    - c. *The man the dog bit.*
        - (which is the case in the adult grammar)
    - or,
    - d. *The man bit the dog.*

Change of word order in English

- Suppose further that OE speakers also frequently produce sentences with the verb right after a topic phrase (e.g., adverbial):
    - e. *Yesterday bit the man the dog.*
- Since subjects can also be topics, sentences such as (f) will also occur in the PLD of a child learning OE:
    - f. *The man bit the dog.*

Ambiguity in the input

- For adults, the verb is fronted from final position. But for children, the PLD is ambiguous.
- Children may thus be driven to conclude that their language is actually verb-initial, not verb-final.
- Later on, when the fad for verb fronting dies out, English will be left with the rigid SVO order of today.

A second example

- Consider another example. Suppose the speakers of a particular language have suddenly become enamored by the passive voice. The PLD for the children learning this language would contain:
    - *The dog barked.*
    - *The dog was bitten by the man.*
    - But less frequently:
    - *The man bit the dog.*
- Assuming this is a dependent-marking language, what kind of change might happen here?

A third example

- Suppose dislocation structures such as "*This dog, the man bit it*" and "*This man, he bit the dog*", have become quite common in some language. What would the children conclude about their language?
- Perhaps that their language might be optionally polysynthetic like Chichewa or Swahili.
- If more changes of that sort take place, subsequent generations of children might eventually think of their language as being totally polysynthetic.

Language change as parameter re-setting

- The view of language as a biological system (as an *I-language*), thus, takes language change (at least in the area of syntax) to be the result of parameter re-setting by children in ways that differ from the adult grammar that children hear around them.
- So, while innovations start with adults, under this approach, language change is actually done by children.

From V2 to non-V2 in OE

- Using the parametric approach, David Lightfoot provides an analysis of the change of verb placement from OE to MidE and ModE.
- To remind you, some languages like German, Dutch, and other Scandinavian languages have a restriction on the position of the finite verb in the sentence: The verb has to come in second, no matter what the first constituent is.
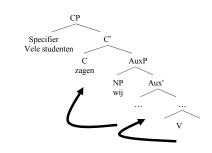
V2 in Dutch

a. [Wij] zagen vele studenten in Amsterdam.
   We saw many students in Amsterdam.
b. [Vele studenten] zagen wij in Amsterdam.
c. [In Amsterdam] zagen wij vele studenten.
d. [Vaak] zagen wij vele studenten in Amsterdam.
e. *[In Amsterdam] wij zagen vele studenten.
f. *[Vaak] wij vele studenten in Amsterdam zagen.

V2 in Dutch

- In our discussion earlier in the semester, we explained the V2 effect in terms of the V2 parameter, whose positive setting forces finite verbs to move all the way from V to Aux then to C, when specifier of C is filled.
- A tree is given on the next slide:

V2 in Dutch

Setting the V2 parameter: The trigger

- What the Dutch-learning child needs to do, as opposed, say, to the English-learning or French-learning child, is simply observe positive evidence in the PLD for the setting of the V2 parameter.
- Examples of such evidence will be sentences like (b-d) above, repeated here for convenience:

   b. [Vele studenten] zagen wij in Amsterdam.
   c. [In Amsterdam] zagen wij vele studenten.
   d. [Vaak] zagen wij vele studenten in Amsterdam.

Setting the V2 parameter: The threshold

- Statistical counts for V2 languages, however, show that the XP in specifier of C is subject 70% of the time in conversational speech, and nonsubject 30% of the time.
- It must be then that 30% is enough to set the V2 parameter positively. Sometimes, this is expressed as the "threshold" for setting the parameter.

Now, back to OE/MidE

- OE and MidE texts show evidence for verb-second orders as well as other orders.
- On the surface, then, it looks like, V2 was optional at this stage in the history of English.
- But that cannot be right, given our general assumptions about parameters. Can you see why?
- A parameter is an either-or option. A child cannot get away with having both options in the same grammar.

Now, back to OE/MidE

- As it turns out, there is good evidence provided by Kroch and Taylor (1997) that MidE actually had two main dialects: A northern, Scandinavian-based V2 dialect, and a southern non-V2 dialect.
- The alternation in texts then is the result of the presence of these two dialects, rather than the optionality of V2 in speakers' grammars.
- The challenging question now is: Why did the V2 grammar in MidE die out?

The loss of V2 from English

- Under the parametric approach, Lightfoot provides an analysis for the death of V2 in English.
- First, children in Lincolnshire and Yorkshire as they mingled with southerners, must have heard sentences where the verb is in second position much less frequently than before.
- According to one statistical count of V2 structures in *Sawles Warde*, a 13th century text, only 17% of main clauses had V2 where the initial element was a nonsubject. This is less than the 30% threshold we noted for the V2 languages of today.

The loss of V2 from English

- Second, northern children must have also started hearing sentences where the verb was in third position, e.g.,
  - a. Æfter his gebede he [$_V$ahof] þæt cild up
    "After his prayer he lifted the child up."
  - b. þis he [$_V$dyde] eat for þes biscopes luuen
    "This he did all for this bishop's love."

The loss of V2 from English

- Third, around that same time the Aux-to-C movement to form yes-no questions (as you know from the midterm exam) was being lost from the grammar, such that forms like "*Visited you London last week?*" were becoming infrequent in the PLD, giving way to "*Did you visit London last week?*".

The loss of V2 from English

- As a result of these three factors, Lightfoot argues, the "trigger" to set the V2 parameter positively was no longer "robust" in the PLD of children learning English, and as a result children were forced to set the parameter negatively, giving rise to the English of today.

The competition model

- Lightfoot's parametric analysis made use of of the idea of "competition" between two grammars operating at the same time, a proposal due to Anthony Kroch and his associates at UPenn.
- One major assumption of the competition model is that speakers of a certain language may actually operate with two grammars at one time, in some sort of "*internalized diglossia*".
- A competition between the two coexisting grammars will eventually drive one out and leave the other.

The competition model

- Under this model, language change "proceeds via competition between grammatically incompatible options which substitute for one another in usage" (Kroch 1994:180, cited in Lightfoot 1999:94).

The "Blocking Effect"

- The competition is driven by an extended version of Mark Aronoff's *Blocking Effect*, initially an economy condition that prohibits the existence of morphological doublets in a language:

  happydom is blocked by *happiness*

  clearness is blocked by *clarity*

  once "*went*" is learned, "*goed*" disappears

The "Blocking Effect"

- But doublets are allowed when they are "functionally" distinct:
  a. *tree **leaves*** vs. Maiple ***Leafs***
  b. *What a bunch of Mickey **mouses**!*
  But not
  What a bunch of Mickey **mice!*
  c. *I've watched several **Supermans/*Supermen**.*
  But,
  *Middlebury students are some sort of **Supermen/*Supermans**.*
  d. *appendixes* and *appendices*

The change from "have" to "have got"

- As a simple illustration, Kroch discusses work by Shawn Noble on the replacement of *have* by *have got* in British English (BE).
- Present-day speakers of BE tend to use *have got* where earlier speakers used *have*:
  a. You've got brown eyes.   (permanent possession)
  b. I've got a new job.   (temporary possession)
  c. She has what amounts to a high Cambridge degree.
      (permanent possession)
  d. They haven't the sense to come in out of the rain.
      (temporary possession)

The change from "have" to "have got"

Date	Type	% of *"have got"*	Total	Probability
1750-1849	temporary	12	83	.66
	permanent	4	108	.34
1850-1899	temporary	34	99	.64
	permanent	16	122	.36
1900-1935	temporary	89	74	.66
	permanent	70	43	.34

The change from "have" to "have got"

- So, while the innovative forms of *have got* are found at different frequencies, they enter the language at the same rate. This is the so-called *Constant Rate Effect* (CRE).
- What the CRE shows us is that what changes over the course of time is the propensity of speakers to use one grammar as opposed to another grammar in their language production.

The VO-OV alternation

- One can think of the VO-OV alternation in OE along the same lines: VPs are head-initial in one grammar and head-final in another, with one grammar eventually forcing out the other.
- And similarly for the rest of syntactic change phenomena.

Acknowledgement

- A large part of the materials on these slides, including the data and the quotes, is based on the discussion in David Lightfoot's book *The development of language: Acquisition, change, and evolution*. Blackwell Publishers, 1999.

Next class agenda

- Linguistic diversity across space and society: Read Fromkin *et al*'s chapter on "Language in society".