

INTD0111A/ARBC0111A

The Unity and Diversity of Human Language

Lecture #11
Oct 19th, 2006

Announcements

- Comments on Assignment #2:
- The word “that” is ambiguous in English between being a “demonstrative” and a “complementizer”:
He told me *that* he read *that* book last week.

(first one is a complementizer; second one is a demonstrative)

Announcements

- Also, “recycling” analyses is normally not a good strategy. So, we “dumped” the V-to-Aux analysis of Nadëb, and for good reasons, as I said in the question. Still, what most of you did was basically recycle the analysis and give it back to me as V-to-C, calling it V2, where the verb is in final position. I did not penalize people for doing that this time, but for future assignments as well as exams, make sure you read the question carefully. If the question asks you come up with an “alternative” analysis, this means an “alternative” analysis. Alternative ≠ recycled.

Announcements

- Language is primarily SPEECH. Writing is just irrelevant to the study of unconscious linguistic knowledge. A writing system is a matter of convention. It has no bearing whatsoever on people’s mental representations of their language. Remember we acquire our native languages before we go to school. So, ...
- You cannot answer questions by making reference to writing. Besides, most of the data I give you are written in the *International Phonetic Alphabet (IPA)*, not in the writing systems of these languages (of course with the exception of European languages).

Announcements

- Trees are read from left to right, i.e., starting with the leftmost terminal, moving rightward until we reach the rightmost terminal.
- In languages like English, this is easy to do, but in languages with head-final or mixed directionality, it could get confusing. An easy way to avoid the confusion is to extend the branches of the tree all the way down, so the terminal symbols are all at the same level, and then read from left to right.

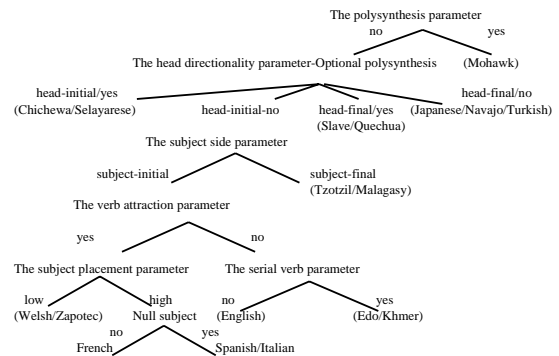
Announcements

- Midterm exam posted here:
<https://segueuserfiles.middlebury.edu/intd0111a-f06/midterm.pdf>
- Please note: No extensions will be given, except for academically acceptable excuses. So, do not make things difficult for yourself. **START EARLY!**
- Also, don’t forget that you are NOT allowed to work with classmates or anybody else on this exam, as you do on assignments. And make sure you write and sign the Honor Code pledge in the space indicated on the exam.

Baker's parameter hierarchy (PH)

- Let's start today's class by having a look at Baker's parameter hierarchy so far:

Baker's PH (4th version)



Any remarks on the PH?

- Subject placement and English: How does English have access to the subject placement parameter?
- Null subjects and polysynthesis: The PH makes it look like these are unrelated, contrary to what Baker was suggesting earlier when talking about subject and object drop in Mohawk.

Any remarks on the PH?

- The paucity of parametric options on the right side of the hierarchy.
- But this is just a result of our so far Anglo-centric approach to cross-linguistic diversity.
- Polysynthetic languages as well as head-final languages also exhibit parametric variation. We discuss some of these today.

So, how does your language treat adjectives?

- For instance, polysynthetic languages differ with regard to how they treat adjectives.
- Mohawk seems to treat adjectives as verbs:
Thikv kanuhsa' ka-rakv-hen'
that house it-white-past
"That house used to be white."

So, how does your language treat adjectives?

- Mayali, however, seems to treat adjectives as nouns instead:
Kandiwo mankuyeng!
you/me-give long
"Give me long."

So, how does your language treat adjectives?

- Interestingly, languages that treat adjectives as nouns will exhibit the so-called “*discontinuous structure*” phenomenon (which Baker calls “split noun phrases”), as in the following example, again from Mayali:

namarngorl gagarme nagimiuk
barramundi he-catch big
“He’s catching a big barramundi.”

The Adjective Neutralization Parameter

- To account for this difference between polysynthetic languages, Baker proposes the Adjective Neutralization Parameter:
“Adjectives are treated as a kind of verb,
or
Adjectives are treated as a kind of noun.”

Alignment (aka case and agreement) systems

- A second area of parametric variation relevant to languages on the right side of the parameter hierarchy has to do with the so-called alignment systems (more known as case and agreement systems).

Alignment (aka case and agreement) systems: Japanese

- Consider the following sentence from Japanese, for example:
John-**ga** Mary-**ni** hon-**o** yatta
John-**SU** Mary-**IOB** book-**DOB** gave
“John gave Mary a book.”
- As you can see, each NP in the Japanese sentence appears with a marker at the end indicating what role the NP plays in the sentence. Each of these markers is called a “case”.
- So, subject NPs appear with *nominative* case; object NPs appear with *accusative* case; and indirect objects appear with *dative* case.

Alignment (aka case and agreement) systems: Japanese

- Notice, crucially, however, that in intransitive clauses (those without an object), the case marker on the subject of a Japanese sentence remains the same (i.e., *-ga*):
John-**ga** Kobe-**ni** itta
John-**NOM** Kobe-**to** went
“John went to Kobe.”

Alignment (aka case and agreement) systems: Greenlandic

- As it turns out, within head-final languages, there are languages with a different case system.
- Compare, for example, the case marking in the following transitive and intransitive sentences from Greenlandic Eskimo (CM stands for “case marker”):

Alignment (aka case and agreement) systems: Greenlandic

- a. Juuna-**p** atuaga-**q** miiqa-**nut** nassiuppaa
Juuna-CM book-CM child-CM send
“Juuna sent a book to the children.”
- b. atuaga-**q** tikissimanngilaq
book-CM hasn’t come
“A book hasn’t come yet.”

Alignment (aka case and agreement) systems: Greenlandic

- What do you notice here?
- The subject of an intransitive clause carries the same case marker as the object of a transitive clause. Such case is typically referred to as “*absolute*,” as opposed to the “*ergative*” case marker on the subject of a transitive verb.
- Greenlandic has a different alignment of case markers than Japanese then. We call Japanese-type languages “*nominative-accusative*” languages. And we call Greenlandic-type languages “*ergative-absolute*” languages.

The Ergative Case Parameter

- To capture this cross-linguistic difference, Baker suggests an “*Ergative case parameter*”:

“The case marker on all subjects is the same (Japanese, Turkish, and Quechua),

or

The case marker on the subject of an intransitive verb is the same as the case marker on the object of a transitive verb (Greenlandic, Dyirbal, Basque).”

The topic-prominent parameter

- Another parametric difference that Baker claims to be relevant only to head-final languages is what he calls the “*topic-prominent parameter*”, which distinguishes languages like Japanese from languages like English:

“A sentence may be made of an initial NP (the topic) followed by a complete clause that is understood as a comment on that topic (Japanese).

or,

No topic phrase distinct from the clause is allowed (English).”

Japanese again!

- Consider, for example, the following Japanese sentences:

a. John *wa* sono hon-o yonda
John **TOPIC** that book-OB read
“Speaking of John, he read that book.”

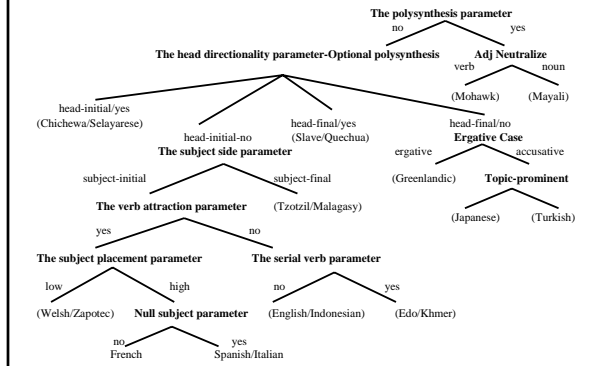
b. Kono hon *wa* John-ga yonda
this book **TOPIC** John-SU read
“Speaking of this book, John has read it.”

c. Sakana *wa* tai-ga oisii
fish **TOPIC** red-snapper-SU is-delicious
“Speaking of fish, red snapper is delicious.”

The topic-prominent parameter

- Baker further claims that the topic-prominent parameter is only relevant to nominative-accusative languages, and not to ergative-absolute languages.
- Incorporating all these new parameters into his parameter hierarchy, we now have a final version of the hierarchy:

Baker's parameter hierarchy (final version)



Two more parameters

- Two areas of linguistic diversity that we touched on in class discussions and in assignments have to do with interrogative structures and the behavior of anaphors.
- Let's consider interrogative structures first.

Variation in wh-questions

- Languages differ in the way they form *wh-questions* (i.e., questions starting with words like *who, what, which*, etc., in English).
- English-type languages always front *wh-words* to the beginning of the sentence:
 - Who did you see?
 - *Did you see who? (bad on a non-echo reading)

Variation in wh-questions

- Japanese, however, does not front its *wh-words*. Rather, these words stay in their position in the sentence. We say they stay “*in situ*”:
- John-ga dare-o putta ka?
 John-SU who-OB hit
 “Who did John hit?”

The wh-parameter

- This seems like another instance of parameterization: “In some languages *wh-words* move to the front of the sentence (English); in others *wh-words* stay “*in situ*” (Japanese).”
- Baker calls this the “question movement parameter”. Let's call it the *wh-parameter*, for short.

The wh-parameter

- So, where does the *wh-parameter* sit on the parameter hierarchy?
- The *wh-parameter* seems independent of other parameters in the parameter hierarchy. In particular, it seems relevant for both polysynthetic and non-polysynthetic languages, head-initial and head-final languages. Baker, therefore, suggests that it exists at the same level as the head directionality and optional polysynthesis parameters.

Parameterizing anaphors: Revisiting a question from Assignment #1

- Another instance of cross-linguistic variation that you should be familiar with from Assignment #1 has to do with the behavior of anaphors in human languages.
- Recall that anaphors are subject to Binding Condition A, which says that an anaphor must be bound within the minimal clause it is in:

a. John_i likes himself_i.

(“*himself*” has to refer to “*John*”)

b. John_i says that [Barry_j likes himself_{*i/j}].

(“*himself*” has to refer to “*Barry*”, not to “*John*”)

And Japanese yet again!

- But we have seen that the Japanese anaphor “*zibun*” behaves differently:

Satoo_e-ga Tanakaj-ga zibun_{ij}-o nikunde-iru koto-o hanasita

Satoo-SU Tanaka-OB self-OB hates fact-OB said

“Satoo_e said that Tanaka_j hates him/himself_j.”

And Chinese as well

- As it turns out, Chinese “*ziji*” behaves exactly like Japanese “*zibun*”:

Zhangsan_i renwei Lisi_j hai-le ziji_{ij}

Zhangsan think Lisi hurt self

“Zhangsan_i thought that Lisi_j hurt him/himself_j.”

The anaphor domain parameter

- One way to capture this difference between English on the one hand, and Japanese and Chinese on the other is by means of a parameter, which we may call the “anaphor domain parameter” (ADP):

“An anaphor must be bound by an NP in the minimal clause it is in (English).

or,

An anaphor must be bound by an NP in the entire sentence it is in (Japanese/Chinese).”

The anaphor domain parameter

- Time to discuss the learnability question from Assignment #1: If you are a child learning English, Japanese, *or* Chinese, on the basis of “positive evidence” only, how would you go about setting the ADP?
- Well, there are two settings. So, let’s try to start with each and see what happens with the child.

The anaphor domain parameter

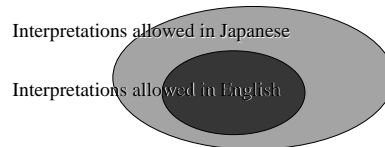
- If a child learning Japanese starts with setting the ADP to the more restrictive English option, will she be able, on the basis of positive evidence only, to re-set the parameter to the Japanese setting?
- Answer: Of course, yes! All the child needs to do is observe cases in the primary linguistic data where “*zibun*” refers to a NP outside the minimal clause in which “*zibun*” occurs.

The anaphor domain parameter

- Now, if a child learning English starts with setting the ADP to the less restrictive Japanese option, will she be able, on the basis of positive evidence only, to re-set the parameter to the Japanese setting?
- Answer: No way! There is no positive evidence in the English primary linguistic data that would force the child to re-set the parameter, since every anaphor interpretation in English is compatible with the Japanese setting.
- The child will thus be “stuck in limbo,” FOREVER, learning English with Japanese intuitions, which simply does not happen.

The anaphor domain parameter

- The key to the solution was to observe that the anaphor interpretations allowed in English are a *subset* of the anaphor interpretations allowed in Japanese.



The Subset Principle

- This is the so-called *Subset Principle*, a general learnability condition, which states that children will always go with the more restrictive setting of a parameter as they're acquiring their language.

Note on the status of the ADP

- The ADP parameter not only seems independent of other parameters, such as the head directionality parameter, but it also differs from all other parameters that we discussed in being sensitive to a certain class of “words” in human language (i.e., anaphors like *-self* pronouns in English and *zibun/ziji* in Japanese/Chinese).

The status of the ADP

- A possible way to account for this case of variation in human languages, then, may be to attribute it to a difference, not in the grammar, but in the lexicon.
- In other words, Japanese and Chinese are different from English in that they have different types of reflexive pronouns that English does not have.
- If this is the case, then the ADP is actually a “lexical” parameter, rather than an instance of “grammatical” parameterization.

The status of the ADP

- In support of this view, Baker mentions that, in addition to *ziji*, Chinese also has a second reflexive pronoun *taziji*, which behaves like *himself* in English:

Zhangsan_i renwei Lisi_j hai-le taziji_{*ij}
 Zhangsan think Lisi hurt self
 “Zhangsan_i thought that Lisi_j hurt himself_{*ij}”

The PH and language acquisition

- Baker ends chapter 6 discussing some facts from first language acquisition that seems to support his proposal for the existence of a parameter hierarchy in UG.
- For example, children seem to acquire word order rather early in their language acquisition, around the age of 1:
English children: “give cookie”
Japanese children: “cookie give”

The PH and language acquisition

- Other studies of children learning English and French show that children acquire the setting of the verb attraction parameter around the age of 21/22 months:
English children: “Not have coffee.”
French children: “Marche pas” (works not)
“Veux pas lolo.” (want not milk)

The PH and language acquisition

- Similarly, children acquiring English and French go through a stage in which verbs are in the right place, but subjects are not:
English: No I see truck.
No Leila have a turn.
French: Tombe Victor (= falls Victor)
Veut encore Adrien du pain
(= Adrien wants more bread)
- At an average age of 24.5 months, children start to put the subject in the right position in sentences.

The PH and language acquisition

- The null subject parameter seems to be acquired later than other parameters, as predicted by Baker’s PH.
- Children learning English and French are known to produce sentences without subjects:
English: Want to get it./Not making muffins.
French: Est pas mort (for Il n’est pas mort)
Is not dead (for “It’s not dead)

The PH and language acquisition

- Very little is known about parameters on the right side of the PH.
- One study, though, shows that Turkish and Japanese children begin to master the nominative-accusative case system of their language around the age of 24 months, which, significantly, happens after they learn the head-final directionality of their language.

Moral of the story

- So, if there is a PH, it not only explains to us which languages are possible and which are not, but it can also shed light on what we expect in language acquisition by children.

Next class

- Read Baker's last chapter. It's a non-technical wrap-up, but has interesting contrasts of the formalist approach against other approaches to the study of language.
- Open discussion on issues we covered so far.
- Questions on midterm.