

CAS LX 400 Second Language Acquisition

Week 5b. UG and L2A:
Binding domains, null subjects

Parameters

- Last time we looked at the **V-to-T parameter** that is responsible for the differences between French (where the adverbs cannot go between the subject and the verb but *can* go between the verb and the object) and English (where the situation is exactly reversed).
- In the studies we discussed, we found very little that would indicate that L2'ers ever manage to "set this parameter" in a way different from the setting in their L1.

Clustering

- One reason to be suspicious of the V-to-T parameter and any purported "re-setting" of the parameter is that **the same parameter setting** (that is the movement of V to T or the lack of such movement) **is supposed to be responsible for both of the adverb placement facts**. However, what L2'ers look like they do is to *retain* the order that their L1 allows and additionally allow the order that the L2 allows—the two orders are not mutually exclusive for L2'ers like they seem to be for "L1'ers".

The null subject parameter

- Adult languages differ in whether they require overt subjects or not.
- English does:
 - *Go to the movies tonight.
- Italian and Spanish do not:
 - Vado al cinema stasera. (Italian)
 - Voy al cine esta noche. (Spanish)
 - '(I) go to the movies tonight.'

The null subject parameter

- There is a significant cluster of properties that seems to go along with be a "null subject" (a.k.a. "pro drop") language.
 - Subject pronouns can be omitted in tensed clauses.
 - (Generally are except to indicate contrast)
 - Expletive subjects are null. (*it rains*).
 - Subjects may be postposed. (*ha telefonato Gianni*)
 - There is no *that*-trace effect.
 - (**Who did you say that left?*)
 - Subject-verb agreement is "rich" or uniform.

White (1985, 1986)

- Compared two groups of subjects learning English:
 - 32 native speakers of (Latin American) Spanish and 2 native speakers of Italian
 - 37 native speakers of Québec French
- Did a test of grammaticality judgments, as well as a question formation test:
 - *Mary believes that Fred will call his mother.*
 - *Who does Mary believe that Fred will call?*
 - *Mary believes that Fred will call his mother.*
 - *Who does Mary believe will call his mother?*

White (1985, 1986)

- The results weren't all that dramatic—the NSL1'ers were quite a bit more likely to accept a sentence with a missing subject (35% vs. 8%), but with respect to judging overt pronoun subjects, and SV vs. VS order, both groups did about the same. It doesn't really seem like “the whole parameter” was transferred...?
- NSL1'ers were also a lot more likely to produce a *that*-trace violation (71% vs. 42%), though non-NSL1'ers still produced quite a number.

Al-Kasey & Pérez-Leroux 1998

- Another, more recent study looking at the possible clustering of properties in L2A of Spanish by English speakers.
- **Observations:** English SSL students are known to make errors in which they will (inappropriately) “overuse” subjects, using “too many” subject pronouns or even fabricating expletives (*es* ‘is’, *hay* ‘there-are’, *el* ‘he’). This is a fairly predictable “transfer” since English requires overt subjects.

Al-Kasey & Pérez-Leroux 1998

- Another error that English SSL students seem to make frequently is like this: (Lee 1987, Al-Kasey & Weston 1992)
 - ...y *la* lee
 - ...and *it-acc-fem-sing* reads
 - '...and reads it.'
- Students will quite systematically misinterpret *la* as being a subject (not an object which it “obviously” is to any native Spanish speaker, because it is actually *marked* as being an object).

Al-Kasey & Pérez-Leroux 1998

- A study was put together in order to look at correlates of the null subject parameter and to see if they all more or less appear together or not.
- Specifically Al-Kasey & Pérez-Leroux looked at places where English and Spanish differ with respect to null subjects (i.e. places where a subject pronoun is optional, places where a subject pronoun is inappropriate, and places where an initial pronoun isn't a subject).

Al-Kasey & Pérez-Leroux 1998

- There was pretty clear evidence of transfer of the subject properties of English to the IL (Spanish-to-be)—an overuse of subjects, a tendency to suppose that overt subjects can be expletive subjects. The more advanced learners recovered, became more native-speaker-like.

Al-Kasey & Pérez-Leroux 1998

- The use of null subjects seemed to appear first for expletive (meaningless) subjects (i.e. for things like *rains*), and a little bit later for silent but meaningful subjects (like *you*, etc.).
- There is clearly an implicational relation; if you have null meaningful subjects, you have null expletive subjects.
- The two properties are at least *connected*.

Al-Kasey & Pérez-Leroux 1998

- Moreover, the levels of null subject production achieved by the “advanced majors” were basically the same as the levels exhibited by the native speakers.
- The correlation and the success suggested to Al-Kasey & Pérez-Leroux that we are in fact looking at connected properties, a parameter being set. The time lag might make us a little bit uneasy, but it *is* a correlation.

So...

- The V-to-T parameter from last time seems to be hard to “re-set”—perhaps it even can’t be re-set.
- The null subject parameter has given us less than clear-cut results—there seems to be some relation between the properties we attribute to the parameter, but they don’t move *directly* together.

Binding Theory: once more

- 1) *John* saw himself.
- 2) *Himself saw *John*.
- 3) **John* said *Mary* saw himself.
- 4) **John* said himself saw *Mary*.
- 5) **John* saw him.
- 6) *John* said *Mary* saw him.
- 7) *John* said he saw *Mary*.

BT

- **Binding Theory**. Principle A: Anaphors (like himself) need an “earlier” antecedent within its binding domain. Principle B: Pronouns (like him) *cannot* have an “earlier” antecedent within its binding domain.
- **Parameter**: Binding domain = sentence containing the element

Binding Theory parameter: the domain for anaphors

- 24) Sam believes [that Harry overestimates himself]
-
- 25) Sam-wa [Harry-ga zibun-o tunet-ta to] it-ta
Sam-top Harry-nom self-acc pinch-past-that say-past
'Sam said that Harry pinched (him)self.'

More advances in BT

- This parameter of binding domain has been studied rather extensively in both theoretical linguistics and second language acquisition.
- Eventually, it was noticed that anaphors which seem to be able to get their referent “long-distance” tend also to be **monomorphemic**—this is particularly clear for languages that have *both* kinds of anaphors, like Dutch *zich* (LD) and *zichzelf* (local), Norwegian *seg* (LD) and *seg selv* (local), etc.

More advances in BT

- One thing this tells us is that *local vs. long-distance* is not a parameter differentiating languages—it's some kind of parameter differentiating *anaphors*, even in the same language. Some languages only have one kind (e.g., English, which has only complex *pronoun+self* anaphors), but some languages have both.

More advances in BT

- One fact about LD anaphors which seems to be pretty robust is that **LD anaphors are subject-oriented**—they can get their reference from a long-distance *subject*, but not from anything else outside of their clause.

More advances in BT

- English *himself* (type 1)
 - Fred_i asked John_j about himself_{i,j}.
- Russian *sebja* 'self' (type 2)
 - Ivan_i sprosila Borisa_j o sebja_{i,*j}.
 - 'Ivan_i asked Boris_j about self_{i,*j}.'
- Japanese *zibun* 'self' (type 3)
 - John_i wa Mary_j ni zibun_{i,*j} no ayasin o mise-ta.
 - 'John_i showed Mary_j pictures of self_{i,*j}.'

More advances in BT

- So there are two things about LD anaphors that differentiate them from local anaphors pretty reliably: **LD anaphors are monomorphemic and subject-oriented; local anaphors are neither.**

More advances in BT

- The last differentiation has to do with the “distance” a LD anaphor can go to find its referent.
- Some languages with LD anaphors differentiate finite and nonfinite clauses, and LD anaphors cannot look outside a finite clause, only outside a nonfinite clause.

-LD, +LD-finite, +LD±finite

- English *himself* (type 1)
 - Fred_i believes John_j to have hurt himself_{*i,j}.
 - Fred_i believes that John_j hurt himself_{*i,j}.
- Russian *sebja* 'self' (type 2)
 - SaSa_i poprosila Marina_j narisovat' sebja_{i,j}.
 - 'Sasha_i asked Marina_j to draw self_{i,j}.'
 - SaSa_i prosit, Ctoby Marina_j narisovala sebja_{*i,j}.
 - 'Sasha_i requests that Marina_j draw self_{*i,j}.'
- Japanese *zibun* 'self' (type 3)
 - Alice_i wa Sue_j ga zibun_{i,j} o aisite iru to omotte iru
 - 'Alice_i thinks that Sue_j loves self_{i,j}.'

More advances in BT

- This *is* a parameter which differentiate languages.
- Incidentally, there is a theoretical explanation for why LD parameters are *both* monomorphemic and subject-oriented.

L2 research on BT

- There has been quite a bit of research into L2'ers' knowledge of BT, and it also provides an area with "clustered" properties. As expected, L2'ers weren't always perfect; learning English, many achieved (correct) type 1 (local) binding, while many others (generally an effect of transfer) spoke English as if it were a type 3 (LD±fin) language. But some seemed to show an effect ±finite on whether an anaphor could be long distance— sounds a bit like type 2 (LD-fin).

MacLaughlin 1998

- In an experiment to try to test this question explicitly, MacLaughlin looked at speakers of type 3 languages (5 native speakers of Chinese, 10 native speakers of Japanese) learning English (type 1) in various settings. What she was specifically looking to do is to classify each learner as "type 1," "type 2," or "type 3" to see in particular if there are any that show up as type 2.

MacLaughlin 1998

- The significance of seeing a L2'er with a type 2 system is that it is *neither a property of the L1* (hence it couldn't have arisen due to transfer from the L1) *nor a property of the L2* (hence it couldn't have arisen simply due to positive evidence from the L2). Rather, it is an *option* made available by UG but taken by neither the L1 nor L2. This is a strong type of evidence for the availability of UG in the L2A process, since it shows that the *parameter options* are still accessible.

MacLaughlin 1998

- The test itself was of the form:
- Tom thinks that John hates himself:
 - *Himself* can be *John* Agree ___ Disagree ___
 - *Himself* can be *Tom* Agree ___ Disagree ___
- Several types of sentences were tested, including sentences with embedded finite clauses and embedded infinitival clauses with both subjects and non-subjects as potential antecedents.

MacLaughlin 1998

- Learners' responses were categorized and learners were assigned to "types" according to whether they met either 80% or 100% expectations.

	Type 1		Type 2		Type 3		Other	
	80	100	80	100	80	100	80	100
E	18	16	0	1	0	0	0	1
L2	6	4	7	4	2	5	0	2
C	3	2	1	1	1	1	0	1
J	3	2	6	3	1	4	0	1

MacLaughlin 1998

- There are two parameters relevant to the *type* that a learner is assigned to... We can see that type 2 is a not surprising place for some learners to arrive at on the way to the target type 1.

	NL	T 3	T 2	T 1	TL
Anaphor					
Monomorphemic	+	+	+		
Polymorphemic	+			+	+
AGR (finite tense blocks LD relation)					
	-	-	+	+	+

So

- So, we've finally got something that appears to be on the "UG side" —
- The parameter of the anaphor and the parameter (AGR) concerning the opacity of finite tense seem to be able to be "re-set" and moreover we see the predicted intermediate point when only one but not the other has been set to the target setting.

Kanno 1996 and Japanese case marker omission

- John *ga* *sono hon o* *yonda*.
nom that book acc read
'John read that book.'
- John *ga* *sono hon* *Ø* *yonda*.
nom that book Ø read
'John read that book.'
- * John *Ø* *sono hon o* *yonda*.
Ø that book acc read
'John read that book.'

Japanese case-marker omission

- Adult knowledge is complicated, relies on the **Empty Category Principle**, which says that an empty category (including a dropped Case marker) must be properly governed.
- The long and the short of this in Japanese is that you can drop a Case marker in object position but you cannot drop a Case marker in subject position.

Kanno 1996

- English speakers learning Japanese know the ECP, because they know:
 - Who did you say *Ø* *t* left?
 - *Who did you say that *t* left?
- But this is a very different context of use from the use in Case marker drop. The question is: **Do English speakers respect the ECP in their interlanguage grammar (toward Japanese)?**
- Note that this is not a *parameter*—both languages use the ECP, stated the same way, it just applies in ways which appear to be quite different in the two languages.

Kanno 1996

- Kanno tested 26 college students in Japanese II on case particle drop.
- Kanno also looked at what the students would have been exposed to by the textbook up to the point where they took the test, to see if they were *taught* when not to drop the case markers.

What the Japanese II students saw...

- 41 cases of object case-marker drop, like:
 - Enpitsu Ø kudasai ?
pencil give
'Can you give me a pencil?'
- 8 cases of subject case-marker drop, in the exceptional case when it is allowed (with a final emphatic particle—these don't violate the ECP):
 - John Ø sono hon o yonda yo.
John that book acc read part
'John (indeed) read the book.' (I think)

What the Japanese II students saw...

- Certain verbs have nominative case on their objects, and case can be dropped on those objects too...
 - John ga kankokugo (ga) dekimasu.
John nom Korean nom can-do
'John can speak Korean.'
- 69 of 110 such verbs in the book had the object case marker dropped.

What the Japanese II students saw...

- Japanese allows arguments to be omitted (somewhat like Italian pro drop), so there were many cases with just one argument (the object) with no case marker:
 - Kami Ø irimasu ka?
paper need Q
'Do you need paper? / Is paper necessary?'

What the Japanese II students saw...

- Worst of all, the *topic marker can be dropped*, which looks a *lot* like a subject marker being dropped.
 - Tanaka-san (wa) itsu kaimasita ka?
top when bought Q
'When did Tanaka buy it?'
'As for Tanaka, when did he buy it?'

What the Japanese II students saw...

- “*ga* [nom] might be deleted, but with a reduction of the **emphasis and focus** conveyed by its inclusion.” (*No hint that sometimes—even usually—it is not allowed*)
- “If *o* [acc] is deleted, [the object] would simply lose a bit of its **emphasis and focus**. On the other hand, the addition of *o* would give added emphasis and focus.”

The poor Japanese II students...

- There's pretty much *no way* they could have reached the right generalization based on what they were provided.
 - Nom can be dropped from object position
 - Top can be dropped from subject position
 - Nom subject can be dropped with a particle
 - Explicit instruction was only about emphasis.

The experiment

- To test this, Kanno used sentences with *wh*-words. *Wh*-words in general do not allow topic marking, so if the particle is dropped from a subject *wh*-word, it could not have been a topic drop.
 - subject *wa wh*-phrase \emptyset verb Q?
 - *subject \emptyset *wh*-phrase acc verb Q?
 - *pro wh*-phrase \emptyset verb Q?
 - **wh*-phrase \emptyset *pro* verb Q?

Kanno's results

	students	native speakers
NP <i>wa</i> NP \emptyset	2.40	2.60
NP \emptyset NP <i>o</i>	1.76 (0.64)	1.36 (1.24)
<i>pro</i> NP \emptyset	2.58	2.86
NP \emptyset <i>pro</i>	1.64 (0.98)	1.31 (1.55)

UG in L2A

- The conclusion is that L2 learners of Japanese have nevertheless (statistically significantly) *gotten* the rule about dropping subject case markers, despite the lack of evidence from the textbook, the instructor, or even surface-English.
- It appears that UG is constraining the IL in *some* way—that is, the universal constraint (ECP) known from the L1 is able to be applied to this new context in the L2.
- This doesn't differentiate between “indirect” and “full” access views of UG-access-in-L2A, but it is evidence that the IL *is* constrained by either L1 or UG.

UG in L2A

- Finally, there do seem to be some things which point to *some* kind of effect of “UG” on L2A.
- The binding theory results suggest *full* (or *partial*) access to UG in the sense that the *options* for parameters are still available (and that parameters can be “re-set” in the IL).
- The ECP result suggests that learners are able to carry over their subconscious knowledge of L1 (provided by UG originally) to their IL.
- Balanced against the V-to-T results and the null subject results, we seem to be in a mixed position, with some parameters re-settable, some not (or at least some very hard to re-set).

