

591B Second Language Acquisition

Week 4a. UG and L2A:
Verb movement

A wee bit of syntax

- The parameter of “verb movement” is a little more complicated, so we’ ll need to dive into syntax a little bit more.
- In English, we have sentences like:
 - John will not eat lunch.
 - subject, modal, negation, verb, object.

A wee bit of syntax

- John will not eat lunch
- We will take each of these words to represent a “slot” in the structure of a sentence. That is, there is a place for subjects, for tense (*will*), for negation (*not*), for verbs, and for objects.

A wee bit of syntax

- *Completely Malcolm will not clean his room.
- *Malcolm completely will not clean his room.
- *Malcolm will completely not clean his room.
- Malcolm will not completely clean his room.
- *Malcolm will not clean completely his room.
- Malcolm will not clean his room completely.
- You may remember that adverbs in English can appear in before the verb or after the object.

A wee bit of syntax

- The reason for this is that the verb and object form a unit (VP) which the adverbs must be “attached to”:
- Malcolm will not [_{VP} clean his room].
- So, these kind of adverbs can, in a sense, serve as “landmarks”. Similarly, *not* and tense and the subject are assumed to be in the same structural position all the time.

Auxiliary verbs

- But some verbs (in particular, *have* and *be*, the “auxiliary verbs”) act different.
- Malcolm will not
 ^ [_{VP} have ^ [_{VP} cleaned his room]] ^.
– So we know that *have* is a real verb here...
- Malcolm has not ^ [_{VP} cleaned his room] ^.
– But if there isn’ t something “filling up” the tense slot, *have* shows up in the tense slot (to the left of *not* and adverbs).

Auxiliary verbs

- Same goes for *be*:
- The steak will not [^] [_{VP} *be* [^] [_{VP} eaten]] [^].
- The steak was not [^] [_{VP} eaten] [^].
- What appears to be happening to *have* and *be* is that they are placed in the tense slot (unless it's otherwise filled) instead of in the VP. Another way to look at it is that the auxiliary verb has *moved* to the tense slot.

Auxiliary verbs

- That is, we might start out with:
- Malcolm [PAST] not [have [cleaned his room]]
- In which case, we have this:
- Malcolm *have*+ [PAST] not [— [cleaned his room]]
- That is...
- Malcolm had not cleaned his room.
- But if start with:
- Malcolm will not [have [cleaned his room]]
- We just get:
- Malcolm will not have cleaned his room.

Verb movement

- Turns out this kind of *verb movement* happens in a lot of languages, sometimes for *all* verbs...
- French is a language of this sort: all (tensed) verbs move to the tense slot.
 - Jean (ne) mange pas de chocolat.
 - Jean (n')est pas bête.
- In each case the verb is to the left of negation (*pas*).
- So French has set the V-to-T parameter *on*, English has set it *off* (except for *be* and *have*).

Verb movement

- Given that French verbs move to the tense slot, and assuming that VP is the crosslinguistically appropriate place to attach adverbs...
- Jean (ne) mange pas [— de chocolat].
- We'd imagine that manner adverbs should show up between negation (*pas*) and the object.

Verb movement

- And we in fact see this:
 - In English, you can never have an adverb between the verb and its object.
 - *John [eats often chocolate].
 - John often [eats chocolate].
 - In French, you *generally* put adverbs between the verb and the object.
 - Jean mange souvent [— du chocolat].
 - *Jean souvent [mange du chocolat].

Verb movement

- This fact that the verb shows up in French to the left both of negation (*pas*) and to the left of adverbs illustrates a **clustering of properties** associated with this parameter. Both properties have the same cause.
- So if we want to attribute the cause of one to the V-to-T parameter, we should expect to find the other property as well.

Interlanguage and UG

- When we ask about whether UG drives L2A, we are in effect asking: *Are IL grammars constrained by UG?*
- That is, are people, as they learn a second language, “allowed to” posit rules/constraints in the IL that do not conform to UG, that could not appear in any natural (native) language?

Why parameters seem to be a good place to look

- One crucial property of the parameters (in the Principles and Parameters model) is that a single setting of the parameter can have effects in several places in the grammar of a language.
- Our current example is verb-movement (V to T), which is set to “yes” in French, and is responsible for:
 - The relative position of negation and the finite verb
 - The relative position of manner adverbs and the finite verb

Why parameters seem to be a good place to look

- So, we can also look for the cluster of effects that are supposed to arise from a single parameter setting.
- Is it the case that once a second language learner gets the verb-adverb order right, s/he also gets the verb-negation order right? If only one kind of verb (finite vs. nonfinite) moves to T, is it the finite verb?

Setting parameters

- In general, we have to say that (full) knowledge of the L2 is going to involve setting the parameters to the appropriate settings for the target language.
- But apart from the word order parameter (VO vs. OV), the existing evidence that learners are setting *parameters* (with the clustering of effects that should be entailed) seems to be lacking.

White (1991)

- Lydia White at McGill has done a number of studies related to this question, and has found a couple of disconcerting things (despite the fact that she is strongly in favor of the UG-in-L2A hypothesis). Let's see what she did and what she found.

White (1991)

- White observes that even sticking to adverbs, there is a small “cluster” of properties tied to the verb raising parameter:
- In French (where V moves to T):
 - S Adv V order is **disallowed**
 - S V Adv Obj order is **allowed**.
- In English (where V does not move to T):
 - S Adv V order is **allowed**
 - S V Adv Obj order is **disallowed**.

White (1991)

- Given this, it *should* be sufficient for a learner to learn the one which is allowed (e.g., in English that **S Adv V** order is allowed)—the V-to-T parameter can then be set (to *off* for English), and then the impossibility of the one which is disallowed (e.g., ***S V Adv Obj** order in English) should follow automatically if they've set the parameter in their IL.

White (1991)

- White's study involved native speakers of French learning English.
- Her subjects were children in grades 5 (average age 11) and 6 (average age 12) with very little prior English exposure and have very little English exposure outside the classroom.
- The children entered a 5-month intensive ESL program where their schooling was devoted entirely to ESL.

White (1991)

- The subjects were divided into two groups, based on whether the ESL instruction included specific teaching on English adverb placement (the other group was taught question-formation instead).
- Three months in, students took a "pretest" on adverb placement, after which the adverb group was trained on adverbs. After the teaching period, students took a test, then another at the end of the ESL program (about 5 weeks later). Finally, the (originally) 5th graders were retested a year later.

White (1991)

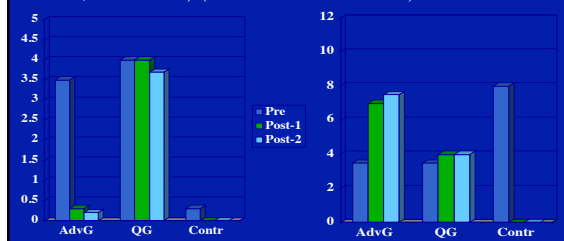
- The tests consisted of three tasks.
- Grammaticality judgment:** Cartoon story with captions; if student thought caption was incorrect, they were to draw arrows to repair the word order.
- Preference task:** Students were given a sentence in two possible orders and asked to respond if both were good, neither was good, or only one (and which one) was good.
- Manipulation task:** Students were given cards with words on them and told to line them up to form a sentence; then asked if they could form another with the same cards, until they couldn't continue.

White (1991) results

- Grammaticality judgment task:
- Adverb group** went from very high acceptance to **SVAO** to very low (native-speaker-like) levels at the first post-test, and remained there for the second one. The **question group** remained high throughout.
- Adverb group** when from moderate use of **SAV** to high (nearly native-speaker-like) levels at the first post-test, and remained there for the second one. The **question group** remained at moderate use throughout.

Results—judgments

- The effect of instruction was pretty dramatic in the first and second post-tests. Explicit instruction helped. (SVAO score, SAV score) (Preference task—same).



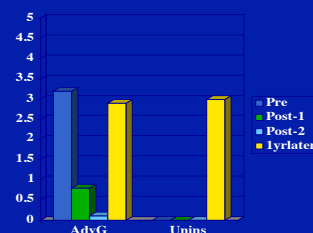
White (1991) results

- A couple of things to notice:
- The **question group** was getting basically **positive evidence only** (adverb position was not explicitly taught). And they didn't fare well on the tests.
- The **adverb group** was getting explicit **negative evidence** and it seemed to help a lot.
- Even the adverb group, while rejecting *SVAO, would not accept SAV as often/reliably as the native speakers—an apparent failure of predicted clustering.
- White suggested essentially that for L2'ers verb raising is optional, but this doesn't really get at the *SVAO result.

The one-year-later test

- ...A startling result when testing those kids who were helped so dramatically by instruction: **the knowledge they gained didn't last**. Again, it doesn't feel like a new parameter setting.

(SVAO score)



White (1991)

- In fact, White also observed that while her Adverb group correctly ruled out *SVAO sentences in English after explicit instruction, they seemed to have incorrectly generalized this to also rule out SVAPP:
 - Mary walks quickly to school.
 - Mary quickly walks to school.
- A 1992 article by Schwartz and Gubala-Ryzak discusses this and points out that this is not something that is possible in a natural language via parameter setting—this behavior can't be the result of mis-set parameters, it must be some kind of prescriptive rule. White, in her response, basically agrees with respect to her particular subjects.

White (1991)

- In any event, White's (1991) study didn't show the strong support for parameter setting that it might have.
- White's study also seems to show that negative evidence seems to only have a very short-term effect on learning.
- This leads us (and later White [1992] too) to guess that what the kids were learning was LLK-type knowledge, and not some kind of reorganization of their grammatical system (by setting a parameter).

Types of input

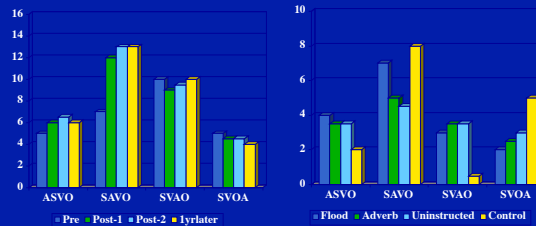
- What White (1991) was trying to test was the effects of different kinds of input; negative input via explicit instruction on adverbs vs. positive input via exposure (without concentrating on adverbs specifically). In her "positive evidence" (question) group, very little advance was made—is positive evidence ineffectual?
- White speculated that the kids in the question condition might not have actually *heard* many adverbs, after listening to some tapes of the classes. Perhaps they just didn't have *enough* positive evidence?

Flooding

- White and Trahey set out to test this by getting together another group of students and subjecting them to a "input flood" of adverb material—no explicit teaching of adverbs, but lots of examples of proper adverb placement in English. Then they ran basically the same tests on the kids as in the other experiment, including the "one year later" experiment. (Trahey 1996)

Flooding results—preference task

- The effect of the input flood appears to have been an increase in the flood group's use of SAVO, but no real change in anything else (in particular *SVAO).



Flooding

- The flooding experiment seems to have shown:
- That the knowledge gained by flooding seems to be more persistent than the knowledge gained by explicit instruction (i.e. adverb group).
- That acceptance of SAVO and rejection of SVAO appear to be independent—the flooding group learned that SAVO was allowed and retained this knowledge, but still didn't reject SVAO (actually a well-known persistent error in L2 English from French; cf. Poirot). This isn't expected if the "knowledge" is a parameter setting that is supposed to have both effects.

Asymmetry?

- In earlier research, White actually did some tests going both directions, and found that native English speakers learning French (that is, going the other way) appear to "catch on" to the allowability of SVAO, while—as we've seen—native French speakers learning English seem to hang on to SVAO indefinitely. Again, if this is a binary parameter, this appears to be a bit unexpected—is it easier to set one way than another?

Hawkins et al. (1993)

- Hawkins et al. (1993) looked at this a little bit more closely (with the assistance of advances in theoretical syntax since White's original study), looking in particular at English speakers learning French.
- In particular, the question Hawkins et al. were asking was: Do English speakers learning French *really* manage to set the V-to-T parameter, given that it seems to be so difficult the other way?

Hawkins et al. (1993)

- They found some evidence for a staged progression, where
 - The least advanced of their subjects could correctly place the verb with respect to negation (but not with respect to adverbs)
 - The more advanced subjects could correctly place the verb with respect to both negation and adverbs.
 - The rate correct for *tous* 'all' placement (cf. *The students all went home*) was lower than for the other two.

Hawkins et al. (1993)

- Hawkins et al. suggest that this is compatible with a view in which the English speakers never really *do* set the V-to-T parameter to *on*, but instead rely on other mechanisms by which the English speakers can "fake" French.

Hawkins et al. (1993)

- **First stage:** L2'ers seem to have the relative position of negation (*pas*) and the verb correct.
- **Hypothesis:** They treat *pas* as if it were attached to the verb to begin with, rather than in the canonical "negation" slot; hence the verb will always appear to its left, regardless of whether the verb raises.
- **Some evidence:** **Ne mange pas-t-il de...* accepted (vs. grammatical *Ne mange-t-il pas de...*); **Ne voir pas son amie est un supplice pour lui...* accepted (vs. grammatical *Ne pas voir...*).
- **And:** This means the relative position of verbs and *adverbs* is not necessarily predicted to be correct. This basically has nothing to do with verb movement in the IL.

Hawkins et al. (1993)

- **Second stage:** English speakers start to allow **SVAO** order in French (without the difficulty encountered by French speakers in disallowing it).
- **Hypothesis:** It is a generalization of *Heavy NP Shift*, already possible in English, which allows postposing of "heavy" NPs, such as:
 - The boy ate — quickly
[the hot soup his mother had made especially for him].
 - *The boy ate quickly it.
- That's a way to get a grammatical **SVAO** sentence in English under special circumstances. So, perhaps these L2'ers are "shifting the object rightward" (rather than moving the verb to T). (Evidence(?): About 40% of I group accept both SVAO and SAVO)

How are we doing?

- It seems like the case for a UG-constrained IL grammar ("full access") is not very strong at this point, despite White and Trahey's best efforts. We've seen several things which did *not* seem to "set a parameter value" (explicit negative evidence, positive evidence even if in a flood), one of which was so temporary as to suggest that the knowledge was basically prescriptive. We've seen that even in cases where it *looked* like a parameter value was "set", closer inspection revealed that it didn't act parameter-like—it didn't show the cluster of properties. We have yet to really see any reason to believe that a parameter *can* be set in L2A.

Parameters

- This *clustering* aspect of parametric settings is very important—if a L2'ers IL shows one "symptom" of a parameter setting but fails to show others, then this is quite good evidence that the parameter was *not* set, but that there is something else going on (or, alternatively, that something else is blocking the other "symptoms" which should correlate)

Coming up

- There's still more to say about the role of UG in L2A, but we seem to have seen so far that if it's even possible to "set a parameter" to a setting other than the L1 setting, it's very difficult.
- That's not to say that all parameters are equal—perhaps the V-to-T parameter is harder to set than other parameters of crosslinguistic variation.