

CAS LX 400 Second Language Acquisition

Week 3b. UG and L2A:
Access and transfer hypotheses

UG and L2A

- There are conflicting suggestions in what we've seen so far with respect to UG and its involvement in L2A.
- First, there is the evidence of a sensitive/critical period, which seems to indicate that whatever it is that makes L1A easy for kids is missing or very weak in adult L2 learners.
- Yet, there is evidence that L2A progresses in similar stages, suggesting that there is some biological component as well.

L2A vs L1A

- There are several differences in the situations of L2A and L1A. Among them:
 - L2 learners are more cognitively mature.
 - L2 learners already know at least one language.
 - L2 learners have highly variable motivations for learning a second language

“Access” hypotheses

- No access hypothesis. UG is not involved in L2A.
 - The end of the critical period marks the end of the availability of UG for language learning purposes.
- Full access hypothesis. UG does not change; it is “accessed directly” during L2A.
 - L1A and L2A are fundamentally similar processes.
- Indirect access hypothesis. UG *per se* is not involved in L2A, but UG shaped L1 and so properties of UG reflected in L1 are available during L2A.
- Partial access hypothesis. Only part of UG is available for L2A; some parts are unavailable (for example, some parameter setting options).

“Transfer” hypotheses

- Where does L2A *start*? What is the *initial state of second language acquisition*?
- A L2'er has a first language already...what effect does this have? The first language is (under the Principles & Parameters view) grammatically described as a set of parameter settings—what role do the L1 settings play?

“Transfer” hypotheses

- Full Transfer: The initial parameter settings (and principle inventory) are transferred from L1. L1 is the starting point for the L2 IL.
- No Transfer: The initial parameter settings (and principle inventory) are independent from the L1. Parameters are either unset or set to some kind of universal default.
- Partial Transfer: Some of the parameter settings (and principle inventory) are transferred from L1, some are not.

Transfer

- Commonsense intuitive notions of L2A suggest that transfer plays a significant role; that you approach second language learning “starting from” your native language.
- This would suggest that learning a “nearby” language should be easier—most parameter settings would be set correctly and would not require adjustment in the IL.

Transfer

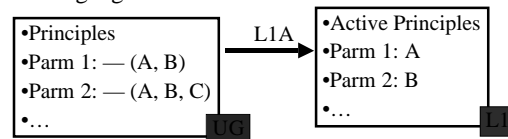
- The idea that a “nearby” language might be easier to learn sounds in a way similar to Contrastive Analysis, but in this context it is a better defined enterprise. We can measure distance between languages in terms of specific parameter values. We can say what counts as “the same difference” (part of a cluster of parametrically-related properties) and what doesn’t.
- We can get at questions of what is transferred by looking at what/whether properties of L2A seem to be affected by the L1 of the second language learner.

Access/Transfer

- We can now list the basic hypotheses out there which we will want to explore and evaluate (not including retreats to *partial* transfer and/or access).
- Full transfer/No access: L2 knowledge is fundamentally different from L1 knowledge, based on L1 knowledge plus conversion rules.
- Full transfer/Full access: L2A is as flexible as L1A, with L1 as the starting point. L1 and L2 “distance” should affect ease/course of acquisition.
- No transfer/Full access: L2A is as flexible as L1A, and the learner’s L1 should not have an effect.

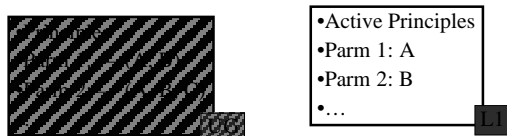
Access hypotheses

- The model these hypotheses work with is essentially that UG provides a *blueprint* or a *template* for languages, which is used to create a concrete *instantiation* of a language.



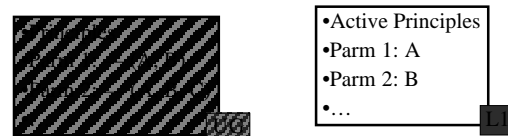
Access hypotheses

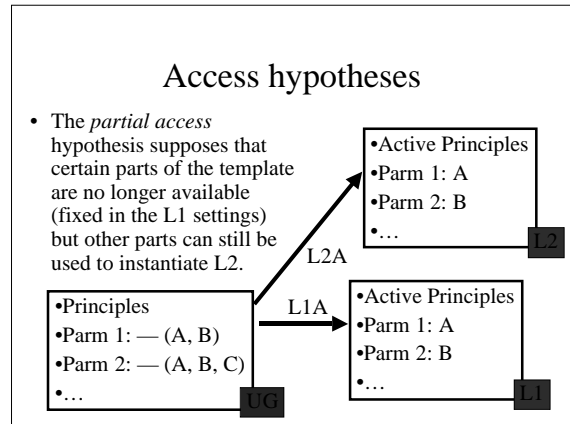
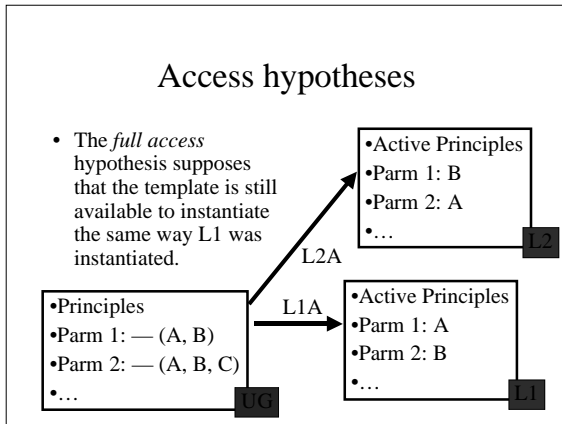
- Once L1 has been instantiated, the template might become unavailable. In this case, the only available information about what languages are like is what’s instantiated in L1.



Access hypotheses

- This is essentially the view of *no access* and *indirect access*.
 - *Indirect access* supposes that the principles and parameters of L1 are available in forming an instantiation of L2
 - *No access* supposes that L2A does not even have direct access to L1; presumably everything L2-related is translated through L1, the mapping is learned in another way.





Distinguishing between access hypotheses

- The *no access* hypothesis takes L2A to be a general learning process, not constrained by properties of UG.
- As such, we do not expect the IL of second language learners to *conform* to the specifications of UG. Part of the motivation for UG was that language has complex structure underdetermined by the evidence, and without UG guidance we would expect that the IL would be free to exhibit properties unlike any natural language (L1).
- So we look for “wildness” in the IL grammar of second language learners—for indications of grammar which would not qualify as an L1.

Distinguishing between access hypotheses

- The *full access* hypothesis, on the other hand, predicts that IL grammars of second language learners, while not the grammar of the target language, will still conform to the restrictions UG places on natural languages. It will operate under the same principles, and it will have parameters which are set to a setting which is possible in natural language.

Distinguishing between access hypotheses

- The *indirect access* hypothesis predicts that second language learners will have an IL which is essentially L1-*plus*. They are predicted not to be able to have principles or parameter settings which differ from the L1, but all of the parameter settings and principles operative in L1 should also be operative in the IL.

Distinguishing between access hypotheses

- The *partial access* hypothesis is the least well-defined. It places itself somewhere between *full access* and *no access*.
 - We *might* see that a second language learner’s IL shows evidence of parameter settings different from the L1 (or not, depending on which parts of UG we are hypothesizing L2A access to).
 - We *might* see evidence of principles not used in L1 but provided for in UG.
- The partial access hypothesis is basically the fallback position, the compromise we need to make if the facts don’t fit into one of the other hypotheses.

In favor of *no access*...

- The well-known “critical period” effects seem to point toward a view like *no access*; adult L2A is much less uniform, typically not fully successful, and appears to involve much more conscious effort.
- Proponents argue that their observations about differences in the course and end result of L2A (vs. L1A) indicate that principles of UG are *not* being obeyed (for example, learners positing rules that appeal to linear order, rather than structure, contra Structure Dependency).

In favor of *no access*

- Meisel (1997) looked at L1A and L2A of negation in German, French, and Basque.
- In L1A in the three languages, negation appears to go through similar stages.
 - First, it is placed externally (generally initially, sometimes finally), unlike in the adult language
 - *No(t) I go home* *I go home no(t).*
 - Then, it appears sentence-internally, in an appropriate position with respect to the tensed verb *for the target language* (differs by language).
- Once children show evidence of knowing how to use finite verbs, they seem to have no particular trouble with the syntax of negation in the target language.

In favor of *no access*

- For L2A, the consensus opinion from previous studies seems to be that second language learners, regardless of target and first languages seem to go through pretty much invariant stages.
 - First, preverbal or initial negation.
 - Then, more target-like internal negation.
- Sounds like the L1A sequences; this made people eager to try to apply the same explanations.
- However, almost all of these studies used English as the target language, and in fact some studies seemed to have “missed” the first stage.

In favor of *no access*

- Closer investigation reveals that not all second language learners go through an “initial negation” stage, even if the L1 has preverbal negation.
- And, unlike in L1A, where there *is* an initial negation stage, it does not seem to disappear at the same time as the control of finite verbs.
- Whereas “initial negation” in L1A is usually *sentence-initial* (before the subject), “initial negation” in L2A is often *preverbal* (but *after* the subject).
- Meisel suggests that initial negation is actually a characteristic of a certain kind of *learner*, a reflection of a *strategy* that (some) people use in L2A.

In favor of *no access*

- Rather than observing structure-dependent negation placement based on [\pm finite], the results tend to suggest strategies based on linear order (i.e. *put negation after the verb*).
- Meisel concludes that any UG involvement in L2A is much less clear given these differences between L1A and L2A.

Concerning this argument

- Notice that this is primarily an argument about *sequence of acquisition*. Roughly, the idea is: Because the sequence of L1A and L2A do not match, and assuming L1A is driven by UG, L2A can't be driven by the same mechanisms.
- In short, this seems to be an argument about whether the (L1) LAD is involved in L2A. It doesn't really fully reach the question of whether UG *constrains* L2A.

Concerning this argument

- Nevertheless, it is important to keep arguments like this in mind. Whether or not we take this to show *no access to UG*, we need to keep in mind that: a) the “invariant sequence” (at least in the acquisition of negation) in L2A is on shakier ground than previous research seemed to suggest, and b) the contingencies between finiteness and verb position with respect to negation (suggesting that they “go together” in L1 grammars) don’t seem to hold of L2A.
- We’ll come back to possible interpretations of “linear” type rules after looking at some of the other access hypotheses.

In favor of *full access*

- First, note that pretty much *any* empirical argument purportedly for *full access* to UG in L2A cannot actually meet its goal. At best, it will show that *in the area studied* there is evidence for access to UG (i.e. *partial access*).
- However, *full access* is a stronger position, so we want to take that as the null hypothesis if we see evidence for *some* access, adopting a *partial access* view only if we see that there is also evidence for *no access* in other areas.

In favor of *full access*

- Primary arguments for (full) access to UG in L2A:
- Second language learners obey certain universal principles which (appear to) work differently in the TL than in the learners’ L1.
- Second language learners’ IL knowledge show evidence of a parameter setting different from their L1, indicating that the *parameter options* are still available

In favor of *full access*

- A simple example discussed by Flynn (1996) is L2A between Japanese and English.
- Japanese and English differ in their setting of the “head parameter”, which indicates whether the object comes before the verb (Japanese, SOV, head-final) or after the verb (English, SVO, head-initial).
- L2 J-->E learners appear to very quickly set this IL parameter correctly, suggesting that they know that both head-initial and head-final are *possible* settings for this parameter, although their L1 parameter is committed to head-final.

In favor of *full access*

- Another principle Flynn studies is Subjacency.
- Recall that Subjacency evaluates the relationship between a *wh*-word at the beginning of a *wh*-question and its trace (generally where the analogous word would appear in a declarative sentence).
 - What did John buy — ?

In favor of *full access*

- In Japanese, *wh*-words are not “moved” to the beginning of a *wh*-question; Japanese is a “*wh*-in-situ” language. Its *wh*-words appear in the same position that the trace “appears” in English.
- Subjacency is concerned *only* with *displacement* of *wh*-words. It is a principle which says that a *wh*-word cannot be displaced out of certain kinds of islands (conjunctions, embedded questions, complex noun phrases, ...).

In favor of *full access*

- Thus, Subjacency does not seem to rule out any *wh*-questions in Japanese. It is possible to ask questions like:
 - ‘You met the man that gave what to Mary?’
 - Cf. *What did you meet the man that gave to Mary?
- Flynn takes this to mean that Subjacency is essentially “inactive” in Japanese. It does not play a role in *wh*-question formation in Japanese.

In favor of *full access*

- Supposing that Subjacency is not an active principle in Japanese, Flynn then considers L2A of English by Japanese speakers and investigates whether these second language learners would nevertheless obey Subjacency in English. That is, do they still have access to this principle provided by UG even though it is not used in their L1?

In favor of *full access*

- Flynn’s experiments seem to indicate that Japanese speakers learning L2 English *do* obey Subjacency, and concludes that they must therefore still have access to UG during L2A.
- As is unfortunately common when looking at experimental results, notice that this seems to be completely contradicting what we’ve seen before; Johnson & Newport found that Chinese adult learners were terrible at judging Subjacency violations in a native-like way. Who’s right??

In favor of *indirect access?*

- First off, the difference between *indirect access* and *no access* is very subtle, if it is even a real distinction.
- *No access* claims that UG is not involved at all, that second language learning is basically general problem-solving.
- *Indirect access* claims that UG is not involved directly, only the “parts of it” which have been selected in L1.

In favor of *indirect access?*

- But surely the idea behind the *no access* hypothesis is that when using a second language, you essentially come up with a sentence in your L1 and then “convert” it using the rules you learned about the L2 (or vice versa for perception).
- So, both hypotheses *really* say that you know what you know about L1 and there is no further contribution of UG. There is no possibility to choose a different parameter setting for L2.

Partial access?

- As mentioned previously, *partial access* is really just a fallback position if there seems to be some evidence for access in one area of “UG” but conflicting evidence for no access in another area.
- In a sense, this might mean this hypothesis is more likely to be right, but there is no way to argue for partial access distinct from arguments for full or no access in subdomains of grammar.

So, where are we?

- Although there are four “standard positions” on the involvement of UG (no, full, indirect, partial), we can really narrow these down to:
- Access (full, partial): UG plays a role in (some areas of) L2 grammar development.
- No access (no, partial): UG does not play a role in (some areas of) (post-critical period) L2 grammar development.

Having set up the landscape...

- Our next step is to look at specific experiments that attempt to empirically decide between these access and transfer hypotheses.

Some readings and reading tips...

- For next time, there are three readings not from the textbook: Borer (1996), Hale (1996), and White (2000).
- Borer (1996) and Hale (1996) are critical responses to an article by Epstein, Flynn, and Martohardjono in *Brain and Behavioral Sciences*, which we will *not* be reading. EFM lay out versions of the access hypotheses, and position themselves as essentially “no transfer/full access” but not in a very convincing way...

Functional categories: part 0

- Consider: Lexical items (words) in a language can be classified into two *kinds*, sometimes called “open-class” and “closed-class” items.
- Open class items can be readily added to the lexicon. A verb describing what a new machine does for example, is easily coined, or the noun naming the new machine itself. *Xeroxed*, etc.
- Closed class items are very stable—you can’t add new ones. Like prepositions, articles.

Functional categories: part 0.1

- In a sense, a lot of the *grammar* of the language lies in the rules of use of these closed-class items like articles (determiners).
- These closed class items are sometimes referred to as *functional categories*, because they carry so much of the structural/grammatical burden in a language.
- The open-class items, the ones with the extensible meanings, are called *lexical categories*.

Functional categories: part 0.2

- A very important but non-obvious functional category is *tense inflection*. For example, past tense is marked on verbs in English, usually as a suffix like *-ed*. You can’t come up with new tenses.
- In English, roughly speaking, the element in the sentence that has tense inflection appears just after the subject:
 - John walked; John walks; John will walk; John did not walk.

Functional categories: part 0.3

- That position where tense is is also where what little agreement there is in English appears
 - he/she/I/you/they walk; s/he walks.
- Sometimes people refer to this position in the sentence as *Inflection*, meaning to cover both tense and agreement information. It is sometimes written as INFL, and sometimes just as I.
- White (2000) refers to “IP” at one point early on; this is a reference to the part of the sentence (the “*Inflection Phrase*”) where tense/agreement inflection appears.

Functional categories: part 0.4

- The fact that INFL is responsible for both tense and agreement has led some people, more recently, to suppose there are two separate (functional) positions in the sentence, one solely devoted to agreement (Agr), and one solely devoted to tense (T). So, Borer (1996) refers to “TP” at one point, meaning the part of the sentence where tense is realized.

Functional categories: part 0.5

- For present purposes, “IP”, “TP”, “AgrP” are all basically interchangeable. They are all *functional categories*, they are all considered to be responsible for some subset of the tense/agreement inflection which appears in English (and by extension in other languages, where it is often more visible).

Little kids and functional categories

- This about the speech of little kids for a second, if you can.
- You wouldn’t be surprised to hear a little kid saying something like “Mommy go”, without any indication of tense or agreement. Little kids in fact do say lots of things that seem to lack tense/agreement inflection.

Little kids and functional categories

- In fact, kids often leave out functional categories early on in the language learning process.
- This has sparked a debate, mentioned in White (2000), about whether kids start with knowledge of functional categories (because they’re part of the shape of languages allowed by UG) or if they start *without* functional categories and come to use them only later. Much L1A research has been devoted to looking for evidence for child knowledge of functional categories.

Other languages and functional categories

- The evidence for certain functional categories is stronger and weaker in different languages. For example, Chinese does not show subject agreement—is there abstractly a position for subject agreement in *all languages* (and hence in Chinese too, though you can never see agreement), or is this position reserved only for languages that show it overtly?

Other languages and functional categories

- If, say, Chinese doesn't have a position for agreement (though agreement is invisible), what happens if a Chinese speaker tries to learn Spanish (where agreement is visible)?
- This is a question which is addressed by all three of the readings, in a sense. Is there such a thing as "inactive in L1" and if something is inactive in L1 does it make sense to suppose that the knowledge of (the possibility of) agreement, say, is missing?

Borer 1996

- An attempt to clarify the concept of universal grammar (a set of constraints on natural language grammars, and only secondarily, and not according to all models, a language acquisition device).
- EFM spend a great deal of effort arguing against a (fairly dramatic misunderstanding of a) proposal made by Vainikka & Young-Scholten about L2A; we'll discuss next week in more detail, you can skip or skim the paragraph about VYS.
- At one point *steady state* is used; this refers to the final state of L2A.

Hale 1996

- One of the main points of this response is to question whether you can *ever* tell the difference between "indirect" (i.e. via L1) and "direct" access to UG..
- "Overt" vs. "covert" *wh*-movement and Subjacency is a complex topic, which Hale touches on—do your best to read past it.

