

## Week 13 Lecture 2

### On Language Acquisition: first language acquisition vs. second language acquisition

#### Part 1 – L1 acquisition

##### 1. Operating principles behind language acquisition

→ First language acquisition is unconscious and proceeds without instruction, or correction. One's first language(s) somehow just "infiltrates" one's mind, given that there is external input.

→ **How is this possible? L1 acquisition is highly constrained by a set of mental principles that are argued to be innate. The principles which govern and constrain 1<sup>st</sup> language acquisition and are responsible for the existence of language universals are known as Universal Grammar (UG)**

**Language Universals = properties that are common to all languages. For example, all languages have the category of noun and verb.**

→ Early stages of language acquisition support the claim that children's utterances are NOT imitations of adult's speech.

→ children produce utterances that adults never do and are quite resistant to correction. They have an internal grammar – Basic Child Grammar (Slobin 1985) – some features of which are universal

→ interestingly, as we shall see, acquisition of signed and spoken languages follow similar stages of development

→ at the heart of the study of language acquisition lie the following questions:

- What role does the environment play in L1 acquisition?
- What is the role played by the innate factors?
- Do all children acquire language in the same way, i.e. follow the same stages?

We can add to this list another question:

- Do children acquiring two or more languages at the same time follow the same pattern of acquisition as those raised in the monolingual environment?

→ in order to answer the above questions as well as many others, it is useful to divide our inquiry into two parts: early language acquisition (0 – 3) and later language acquisition (3+)

## 1.2 Linguistic development at infancy

→ Crucially, the first exposure to language comes not after birth, but before. For example, DeCasper and Spence 1986 asked women at the last 6 weeks of their pregnancy to read Dr. Seuss aloud. A few days after the children were born, the babies were tested using a special pacifier that measured the rate of sucking. Half of the subjects heard the same story their mothers read while the other half heard another story.

→ The babies who heard the familiar story modified their sucking rate when they heard the Dr. Seuss story while the other group did not (from Carroll 2004: 242)

→ DeCasper and Fifer 1980 also showed that infants prefer their mother's voice to that of strangers.

## 1.3 The role of input after birth

→ speech directed to children (motherese or baby-talk) is different than that directed to adults. It involves higher, more variable pitch and has more pronounced intonational contour. These characteristics draw infants' attention.

→ Infants indeed prefer to listen to baby-talk than to adult speech (Fernald and Kuhl 1987)

→ however! While baby talk is very popular, especially in the western tradition, it is by no means a necessary element in child language acquisition. Many mothers do not do so almost at all. It is a matter of much debate whether language acquisition is even facilitated by baby-talk.

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## 1.4 Word learning and The Gavagai Problem (Quine 1960) – a digression

→ linguists have arrived at the conclusion that we don't approach word learning without any assumptions. We have a predisposition towards assigning the referent to a word such that it is a whole object. Hence, when we see something [possibly new to us] and hear an unknown word, we assume that the word refers to the entire object, not just to a part of it. Sometimes, this assumption must be modified.

→ In addition, children also resist giving a second name to something that already has a name. We hate synonymy!

→ for example, as shown in Carey 1978, Carey and Bartlett 1978 when a 3-4 year old is introduced to a new color term the like to assign it to a new color. The children were shown two trays a blue one and the olive one. They did not know the word *olive*. The researchers asked them to get the *chromium tray, not the blue one, the chromium one*. The children did not know the word "chromium" but they did know the word "blue". All the children retrieved the olive tray which indicates a resistance to using a new term "chromium" to refer to an already known color term "blue" as a synonym.

→ (interestingly, the above properties – whole object preference and one thing one label – are also present in adult age, at least to some extent.)

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→ To put things in perspective, let's consider some operating principles children appear to follow during language acquisition.

→ The principles were formulated in Slobin 1973, 1985

→ These principles are likely innate as they form the mechanism that facilitates a speedy and effortless language acquisition (quoted in Carroll 2004):

- Pay attention to the ends of words
- The phonological forms of words can be systematically modified
- Pay attention to the order of words and morphemes
- Avoid interruption or rearrangement of linguistic units
- Underlying semantic relations should be marked overtly and clearly
- Avoid exceptions
- The use of grammatical markers should make semantic sense

→ in addition to the above operating principles, there are also the following cognitive constraints that constrain / limit the number of possible hypotheses a child makes when approaching the problem of word learning. These were formulated by Ellen Markman (1989) and are as follows:

**Cognitive constraints on word learning:**

- The whole object bias = words refer to wholes not parts
- A taxonomic bias = the object label is for a category not just for a member of the category. That is, “dog” is a name for all types of dogs, not just for a single dog
- Mutual exclusivity bias = don't accept synonyms! Once a word has a name, reject any other name for it

→ some people argue that the above constraints arise from experience (Nelson 1988, Tomasello 2001). What do we think about that?

→ Another question is whether these constraints are domain specific or whether they are general cognitive constraints.

**Part 2 SLA**

**2. Bilingualism vs. Second language acquisition** - these are not the same terms.

Bilingualism refers to a simultaneous or virtually simultaneous acquisition of two languages. Second language acquisition refers to learning a second language in childhood or adult age while having already gained competence in the 1<sup>st</sup> language.

→ this is where the Critical Period (Lenneberg 1964) really becomes important. Does Universal Grammar atrophy completely after or around puberty or does it simply gradually die down?

→ the Big Theoretical Divide: The Fundamental Difference Hypothesis (Bley-Vroman 1989) vs. UG-driven L2 acquisition (White 199x, Flynn etc). The main question around which research in L2 revolves is whether L2 is driven by some general-purpose cognitive mechanisms not domain-specific unlike 1st language or whether some remnants of UG remain. No one believes that UG is fully active in adults, but is it completely gone?

→ what L2 has that L1 does not: the factors in and properties of L2 acquisition:

- AGE!
- 1<sup>st</sup> language
- Motivation
- Directed Input
- Negative evidence
- Correction / Explicit instruction
- Fossilization = when grammatical development ceases prior to achieving full native competence
- Interlanguage grammars (Selinker 1972)
- Internal variation = learners are not uniform even if they are of the same age and come from the same linguistic background

→ Research indicates that L2 learners develop a grammar known as Interlanguage which is a combination of their L1 grammar and some aspects of L2 grammar. However, interestingly, Interlanguage (IL) is an example of a situation where a whole is bigger than the sum of its parts. Thus, IL often has properties that are not part of either grammar. They just emerge...

→ to appreciate this fact, consider first the two types of errors made by learners:

1) Transfer errors = errors made by applying rules of L1 in L2

Positive transfer = transferring a feature of L1 that also exists in L2  
into L2

Negative transfer (interference) = transferring a feature of L1 into L2  
that does not exist in L2

2) Developmental errors = over-generalization – similar to the types of errors made by children learning their L1.

Example: Russian lacks inversion in questions. So you just ask “what time it is?” with an intonational rise. English has inversion in non-embedded questions: “what time is it?” but not in the embedded questions: “I wonder what time it is / \* is it?”. Now, one of the

most common errors made by native speakers of Russian acquiring English (even very advanced and successful learners) is this:

“I wonder what time is it?” [sounds rather fine to me, by the way....]

How can we explain this if inversion does not even exist in Russian?

**Question** what does the existence of developmental errors suggest about the nature of L2 acquisition and its difference from L1 acquisition?

Can the Fundamental Difference Hypothesis explain the existence of developmental errors in second language acquisition?

→ **Negative evidence in L2**

→ unlike L1 acquisition, where negative evidence is irrelevant, negative evidence is indeed important in second language acquisition. L2 learners need to be explicitly corrected when they make a particular error in the target language.

-> why do you think this is?

**Conclusion and discussion**

--> At the end of the day, we are still faced with the same persisting question: is UG at least in part, available to L2 learners? To what extent? In what aspects of L2 learning is it manifest ? can we really ever test it?