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Second Language Acquistion Digital Teaching Materials: Unit 3

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SECOND LANGUAGE ACQUISITION

UNIT #3: CHILD LANGUAGE ACQUISITION

3.1 WHAT WE'LL COVER IN THIS UNIT

This unit will be a brief introduction to child language acquisition, and we'll use this topic to introduce certain key ideas that we will come back to from a second language acquisition perspective later in the course. After completing this unit, you will:

- —know what the key theoretical problem is in child language acquisition;
- —understand data on the morpheme order studies;
- -know how questions are learned in English; and
- —understand key theories which seek to explain first language acquisition.

3.2 WHY STUDY CHILD LANGUAGE ACQUISITION IN AN SLA CLASS?

It might seem odd to begin studying SLA by discussing first language acquisition, but there are several good reasons for this. First of all, research into language acquisition began with first language acquisition, and when second language acquisition began as a research field, many of the issue, concerns and theories form first language acquisition were focused on. Second, as we'll see, some of the data, particularly developmental orders, might turn out to be the same for first and second language acquisition, and this could suggest some underlying similarities between the two. Similarly, the theories of L1A might directly apply to SLA. Finally, the question of whether or not L1A and SLA are similar has profound implications for teaching and learning. If the processes are the same, then perhaps an L1A-like context would be the best for SLA? It will turn out that this is not the case, but the surprising similarities and differences between L1A and SLA do have important implications

VIDEO TASK: PLACING CHILD LANGUAGE ACQUISITION IN CONTEXT

As an introduction to this area, watch the short video produced by David Chrystal, one of the most famous linguists in the world, a prolific writer and author of the *Encyclopedia of Language*. Here Crystal

will make the point that child language acquisition is more than first language acquisition, thus supporting the points made in the previous unit about the complexity of the context of language acquisition.

David Crystal on child language learning:

https://www.youtube.com/watch?v=gs_Mjl08-Eo

3.3 THE BASIC PROBLEM AND DATA WHICH EXEMPLIFIES IT

Learning our first language is one of the most incredible feats of learning we accomplish, and it happens astonishingly quickly, largely without our awareness, and at an age when we are so cognitively immature and helpless that we cannot take care of ourselves without constant attention from our caretakers. All of this is happening within a few years before we have even gone to school, and all of this happens almost completely uniformly across all of humanity and across all languages on the planet. Explaining how we learn our first language and how language must be structured so that it can be learnable has been a major focus of research and thinking in the field of linguistics.

Let's have a look at some English data which can exemplify this meteoric language development. It takes nearly two years for many children to read the stage of being able to use two words together, although before this time children have been learning the sounds of the language and identifying words and the objects and concepts that underlie them. From the two-word stage there is rapid development of language as is shown from the following quotation by Steven Pinker.

READING TASK: LOOKING AT FIRST LANGUAGE DEVELOPMENT

As you read the examples after Pinker's introduction, notice how the child's language rapidly grows in complixity.

If we divide language development into somewhat arbitrary stages, like Syllable Babbling, Gibberish Babbling, One-Word Utterances, and Two-Word Strings, the next stage would have to be called All Hell Breaks Loose. Between the late twos and the mid-threes, children's language blooms into fluent grammatical conversation so rapidly that it overwhelms the researchers who study it, and no one has worked out the exact sequence. Sentence length increases steadily, and because grammar is a discrete combinatorial system, the number of syntactic types increases exponentially, doubling every month, reaching the thousands before the third birthday. You can get a feel for this explosion by seeing how the

speech of a little boy called Adam grows in sophistication over the period of a year, starting with his early word combinations at the age of two years and three months ("2;3"):

- 2;3: Play checkers. Big drum. I got horn. A bunny-rabbit walk.
- 2;4: See marching bear go? Screw part machine. That busy bulldozer truck.
- 2;5: Now put boots on. Where wrench go? Mommy talking bout lady. What that paper clip doing?
- 2;6: Write a piece a paper. What that egg doing? I lost a shoe. No, I don't want to sit seat.
- 2;7: Where piece a paper go? Ursula has a boot on. Going to see kitten. Put the cigarette down. Dropped a rubber band. Shadow has hat just like that. Rintintin don't fly, Mommy.
- 2;8: Let me get down with the boots on. Don't be afraid a horses. How tiger be so healthy and fly like kite? Joshua throw like a penguin.
- 2;9: Where Mommy keep her pocket book? Show you something funny. Just like turtle make mud pie.
- 2;10: Look at that train Ursula brought. I simply don't want put in chair. You don't have paper. Do you want little bit, Cromer? I can't wear it tomorrow.
- 2;11: That birdie hopping by Missouri in bag. Do want some pie on your face? Why you mixing baby chocolate? I finish drinking all up down my throat. I said why not you coming in? Look at that piece a paper and tell it. Do you want me tie that round? We going turn light on so you can't see.
- 3;0: I going come in fourteen minutes. I going wear that to wedding. I see what happens. I have to save them now. Those are not strong mens. They are going sleep in wintertime. You dress me up like a baby elephant.
- 3;1: I like to play with something else. You know how to put it back together. I gon' make it like a rocket to blast off with. I put another one on the floor. You went to Boston University? You want to give me some carrots and some beans? Press the button and catch it, sir. I want some other peanuts. Why you put the pacifier in his mouth? Doggies like to climb up.
- 3;2: So it can't be cleaned? I broke my racing car. Do you know the light wents off? What happened to the bridge? When it's got a flat tire it's need a go to the station. I dream sometimes. I'm going to mail this so the letter can't come off. I want to have some espresso. The sun is not too bright. Can I have some sugar? Can I put my head in the mailbox so the mailman can know where I are and put me in the mailbox? Can I keep the screwdriver just like a carpenter keep the screwdriver?

—Pinker 1994:269-70

how much children can say, that is the "mean length of utterance" (MLU) is a way of showing how developed children's language abilities are.

Unfortunately, this way of measuring development through length of utterances doesn't work for showing development in second languages in school-aged children, and particular in adults.

For people who already know a language, it's quite possible after a little bit of instruction to produce quite long utterances early on in the second language learning process which do not reflect complex language development. And, this is, of course, the great problem of second language learning: the amount of speech one can produce does not have any bearing on how complex or accurate it is. Developing this complexity and accuracy in a second language is indeed a long-term struggle, and this is a major difference between child first and later second language acquisition.

In child language acquisition, not only are utterances getting longer, but they are becoming more complex. This can be seen through children's development of the ability for form questions in English, that is, as the move along a **developmental order**.

DATA ANALYSIS TASK: EXPLORING THE STAGES OF QUESTION LEARNING

The following data comes from out textbook, and it is worth having a look at as it has implications for our theories of second language acquisition as well. Read over the following questions produced by children as they are developing their ability to speak English as a first language. Consider the following questions:

- 1. What differences can you see in the questions as the child progresses through the stages?
- 2. As the child advances we can see some changes in the accuracy of their speech, but rather it is advancing complexity which shows their development. Can you find evidence that this is the case?

Stage 1 "Cookie?" "Mummy book?" "Where's Daddy?" "What's that?" Stage 2 "You like this?" "I have some?" Stage 3 "Can I go?"

"Are you happy?"

"Is the teddy is tired?"

"Do I can have a cookie?"

"Why you don't have one?"

"Why you catched it?"

Stage 4

"Are you going to play with me?"

"Do dogs like ice cream?"

Stage 5

"Are these your boots?"

"Why did you do that?"

"Does Daddy have a box?"

"Why the teddy bear can't go outside?"

"Ask him why can't he go out."

—Lightbown and Spada 2013

Interestingly, in the data we can see a mix of correct and incorrect forms from the first stage through the 5th, yet the striking difference is the movement from simple forms, such as one or two word questions in Stage 1, to complex questions in Stage 5 using question words and complex syntax.

READING TASK: EXPLORING THE EXPERTS' EXPLANATIONS FOR STATES OF QUESTION LEARNING

Let's have another look at this data, but this time with Lightbown and Spada's explanation of what is happening during question development.

Stage 1

Children's earliest questions are single words or simple two- or three-word sentences with rising intonation:

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"Cookie?"
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"Mummy book?"

At the same time, they may produce some correct questions-correct because they have been learned as chunks:

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"Where's Daddy?
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"What's that?"

Stage 2

As they begin to ask more new questions, children use the word order of the declarative sentence, with rising intonation.

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"You like this?"
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"I have some?"

They continue to produce the correct chunk-learned forms such as 'What's that?' alongside their own created questions.

Stage 3

Gradually, children notice that the structure of questions is different and begin to produce questions such as:

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"Can I go?"
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"Are you happy?"

Although some questions at this stage match the adult pattern, they may be right for the wrong reason. To describe this, we need to see the pattern from the child's perspective rather than from the perspective of the adult grammar. We call this stage 'fronting' because the child's rule seems to be that questions are formed by putting something-a verb form or question word-at the 'front' of a sentence, leaving the rest of the sentence in its statement form.

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"Is the teddy is tired?"
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"Do I can have a cookie?"

"Why you don't have one?"

"Why you catched it?"

Stage 4

At stage 4, some questions are formed by subject-auxiliary inversion. The questions resemble those of stage 3, but there is more variety in the auxiliaries that appear before the subject.

"Are you going to play with me?"

At this stage, children can even add 'do' in questions in which there would be no auxiliary in the declarative version of the sentence.

"Do dogs like ice cream?"

Even at this stage, however, children seem able to use either inversion or a wh- word, but not both. Therefore, we may find inversion in 'yes/no' questions but not in wh- questions, unless they are FORMULAIC units such as 'What's that?'

Stage 5

At stage 5, both wh- and 'yes/no' questions are formed correctly.

"Are these your boots?

"Why did you do that?"

"Does Daddy have a box?"

Negative questions may still be a bit too difficult.

"Why the teddy bear can't go outside?"

And even though performance on most questions is correct, there is still one

more hurdle. When wh- words appear in subordinate clauses or embedded

questions, children overgeneralize the inverted form that would be correct

for simple questions and produce sentences such as:

"Ask him why can't he go out."

Stage 6

At this stage, children are able to correctly form all question types, including negative and complex embedded questions.

Passage through developmental sequences does not always follow a steady uninterrupted path. Children appear to learn new things and then fall back on old patterns when there is added stress in a new situation or when they are using other new elements in their language. But the overall path takes them toward mastery of the language that is spoken around them.

—Lightbown and Spada 2013

As you can see from their description, learning how to form questions in English is a complex process which involves an increase of complexity over time. In the end, correct questions have been learned

through a series of separate stages. One of the fascinating things that we'll see in later units is that English as a second language learners learn how to form questions by going through the same discrete stages that children do, showing the same type of progress towards complexity that children do.

There are other developmental sequences and orders of acquisition in first language acquisition which are quite similar to second language acquisition, and we'll have a chance to talk about them later.

3.4 THEORIES OF FIRST LANGUAGE ACQUISITION

We've seen data which shows the amazing growth of language in small children, but the key question is: How do children do this? What cognitive mechanisms or social contexts allow for this? The answer to this question is quite complex and is still an on-going research project for linguistics, but it is worth surveying three major theories that have been put forth to explain first language acquisition. We'll also find that these three major theories are used in second language acquisition as well.

The first theory we'll briefly take a look at is the **behaviorist view of language learning**. This view suggests that all learning is based on habit formation, and that these habits are formed through our experience with the world, especially through reinforcement that we receive for successfully imitating an action, in this case using language. This theory accounts for not only language learning and more in Humans, but learning in other species such a pigeons, too, as can be seen in the following video.

VIDEO TASK: SEEING BEHAVIORISM IN ACTION

Here you can see B.F. Skinner, one of the major figures behind behaviorism, training two pigeons to play table tennis. Consider how much your own view of language learning is explained by this model

BF Skinner on ping pong playing pigeons:

https://youtu.be/vGazyH6fQQ4

Although the "imitation and habit formation" idea of language learning is a quite popular idea, there are two major problems. First it turns out that not all children imitate, and that that those that do, may, as our textbook points out, "imitate selectively", unconsciously focusing on those elements of language that are being learned. Other children rarely repeat.

DATA ANALYSIS TASK: OBSERVING A CHILD IMITATING

Here's an example from our textbook of "Cindy", who appears to be focusing on learning about carrots. She's speaking with Patsy, our textbook author, about a book that they have been looking at. How is Cindy imitating language around her?

Cindy (24 months, 16 days) is looking at a picture of a carrot in a book and trying to get Patsy's attention.

Cindy: Kawo? kawo? kawo? kawo? kawo?

Patsy: What are the rabbits eating?

Cindy: They eating ... kando?

Patsy: No, that's a carrot.

Cindy: Carrot. (pointing to each carrot on the page) The other ...carrot. The other carrot. The other carrot.

(A few minutes later, Cindy brings Patsy a stuffed toy rabbit.)

Patsy: What does this rabbit like to eat?

Cindy: (incomprehensible) eat the carrots.

(Cindy gets another stuffed rabbit.)

Cindy: He (incomprehensible) eat carrots. The other one ear carrots. They both eat carrots.

(One week later, Cindy opens the book to the same page.)

Cindy: Here's the carrors. (pointing) Is that a carrot?

Patsy: Yes.

—Lightbown & Spada 2013

Indeed, in this example, Cindy is seen to be repeating the word "carrot", but more than that, she appears to be practicing it and trying to remember it. This is what is important right at this moment for her. She is not simply repeating the words that she hears around her.

The second problem with the behaviorist theory of language learning, is that children produce language that they don't hear around them, something they wouldn't do if learning was mainly based on imitation. Furthermore, they produce language which suggests that they are learning rules rather than simply repeating phrases.

An alternative view to this view, is that children are born with this ability to learn language and also have specialize knowledge about language which guides their learning. This specialize knowledge is called **universal grammar**.

VIDEO TASK: EXPLORING THE INNATIST EXPLANATIONS FOR CHILD LANGUAGE ACQUISITION

Watch the following video clip where Steven Pinker discusses the criticisms of the behaviorist approach and shows how a different approach based on innate principles and knowledge about language works better.

While you are watching the video clip, keep in mind the following questions:

- 1. What evidence does he give against the behaviorist view?
- 2. What is innatist view that he presents?

Steven Pinker on universal grammar:

https://www.youtube.com/watch?v=ir7arlLigxg

The theory of Universal Grammar that Pinker speaks about had been one of the dominant views in linguistics and child language acquisition since the late 1950s. To clarify what this theory is, it is worth reading a brief statement by Chomsky. Here in this text, written in the early 1960s, he lays out the research plan which was followed by the field of linguistics for many years.

The child must have a method for devising an appropriate grammar. He must possess, first, a linguistic theory that specifies the form of a grammar of a possible human language, and, second, a strategy for selecting a grammar of the appropriate form that is compatible with the primary linguistic data. As a long-range task for general linguistics, we might set the problem of developing an account of this innate linguistic theory that provides the basis for language learning.

—Chomsky 1965

It is this "linguistic theory" that the child has which is Universal Grammar. It can best be understood as a set constraints or limits on what a language can be like which guides the child's guesses about the structure of the language he or she is learning. It is still an open question whether or not this theory does indeed explain first language acquisition, or if indeed it can be seen to apply to second language acquisition.

A final theory, or set of theories that I'll briefly touch on here can be grouped, as our textbook does, under the heading of "interactionist/developmental perspectives. Two things unite the different perspectives under this general title. First is an emphasis on the importance of conversation and interaction in the language, and thus the accumulation of massive amounts of language experience. Second is the belief that unlike the Universal Grammar view, no special cognitive mechanisms specifically devoted to language are need to learn language. All of the cognitive resources that we have which guide our general learning of concepts and skills are enough for driving first language acquisition. We'll come back to this theory in a later unit when we discuss theories of second language acquisition. There it will turn out that cognitive theories of learning might provide the best explanations for second language learning.

EXPLORING IDEAS IN MORE DEPTH: CONSTRUCTION GRAMMAR AND USAGE-BASED THEORIES

If you'd like to explore this third interactionist/developmental perspective in more depth, listen to the following video from about the 4:50 minute mark to about the 15 minute mark. Here you'll see well-known author Martin Hilpert contrast the "dictionary and grammar" model of Chomsky's with a the relatively new view on construction grammar.

Martin Hilpert on new views on child language acquisition:

https://youtu.be/k_fFb6X3umw?start=292

3.5 SUMMARY OF THIS UNIT

In this unit we've had a look at first language acquisition with an eye to how this data and these theories might apply to second language acquisition. We looked at the development of complexity of utterances over a one-year period, and also the development of questions. Then the explanation for this type of development was briefly introduced via three quite different theories. We will return to all of these issues when we discuss second language development in the following unit, and theories of SLA following that.

3.6 KEY CONCEPTS DEVELOPED IN THIS UNIT

Developmental orders

The behaviorist explanation for L1A

Innatist explanations for L12

Universal grammar

Interactionist/developmental explanations for L1A

3.7 REFERENCES MENTIONED IN THIS UNIT.

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