

Fundamentals of language Acquisition

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Lecture 039

Lec 39: Adult SLA

Welcome back. We are in Module 8. Today, we will start with Lecture 4 of Module 8. Lecture 4 will deal with adult second language acquisition. In the previous lectures, we have looked at childhood SLA and various other aspects, such as social, socio-political, macro, and micro social factors of SLA, and so on. So now we will start with adult second language acquisition. Adult SLA is when the second language is learned in adulthood, as the name suggests. So we are not going into the definitional aspect, but this is how childhood and adult SLA are different. So adult SLA is different from childhood SLA in terms of the age of acquisition. There is no hard and fast rule as to when it starts, but anytime in adulthood is acceptable.

So that is how it is understood. For a long time, in fact, much before childhood bilingualism, or, you know, in terms of simultaneous and successive bilingualism, all this came into being, much before that also, SLA has been studied from the adult perspective. How are the processes different between the acquisition of a first language and a second language? within the broader domain of adult SLA, this has been studied for quite some time now. And these are because we have a rich literature in this domain, so there are multiple facets from which these ideas have been explored. From a learner-centric perspective, these are the few features that have been studied at length.

So, for example, we have pointers like aptitude, individual differences, motivation, and so on and so forth. So, many of these things have been studied from a sociolinguistic perspective, sociolinguistics as well as psycholinguistics. So, how are people different, how might individuals differ in terms of how they acquired their second language, what are the

motivational aspects, how are those motivational aspects part of the larger social reality, and so on and so forth. So, these are the learner-centric variables. Now, these have also been studied; SLA has also been studied from formal and cognitive approaches, and those approaches typically are based on the grammatical and psychological theory of language.

So, these are the two different domains. So, the learner-centric approach, as well as the formal, psychological, or cognitive approaches, as they can be called. Much like Childhood SLA, Adult SLA has also focused on a few primary motivating factors for research. For example, age and input. Age has been seen in terms of Childhood SLA, as to how age is a rather important factor.

And when we talk about age, primarily the discussion goes into the critical period hypothesis and how tenable this is, or whether it is tenable or not, and what the possible alternatives are, and so on. So similarly, for adult SLA, when you talk about age, the similar kind of things will be addressed. And because of this, as I started by saying, adult SLA has often been studied in comparison with monolingual or, let us say, L1 acquisition. Because the comparison of L1 and L2 is happening here, age will obviously be one of the factors. So, since the beginning, the questions that were asked are whether L1 and L2 acquisition are different or similar.

Do L2 learners achieve native-like competence? In the initial, you know, few decades back, the initial questions were this: are they the same or are they different? How can they be the same? Because one is learnt in early childhood as soon as you are born, and adult SLA, of course, is learned in adulthood. So, what are the differences? What are the primary factors? And are adults capable of finally achieving native-like competence? For a long time in language research, bilingualism, and language acquisition research, the main focus in these domains was a comparison between monolinguals and bilinguals. Because monolingualism was considered to be the default state. So, because a large part of the probably Western countries were largely monolingual, that is probably one of the reasons. But nonetheless, monolingual and bilingual comparisons remained the cornerstone of all this research for a very long time, as a result of which we see this kind of question.

So, native-like competence, so native-like as in the monolingual speaker of that particular language. So, if we are looking at English as L2, for example, I am not a native speaker of English; I am an L2 learner/speaker of English. Now, my proficiency level needs to match that of a monolingual speaker or at least an L1 speaker of English. Only then will I be called a good enough L2 speaker of the language. That was the idea before.

So, that is why this comparison between L1 and L2 in terms of native-like competence was a very recurring theme. So, a number of studies point to the difference between these two, highlighting that L2 learners cannot achieve native-like competence. Most of the studies from those days even now point out that it is not possible. Adult SLA learners will not speak like natives. And the primary reason that was given is the later age of acquisition.

So, there is a difference between L2 learners, adult L2 learners, and L1 learners of the same language in terms of proficiency because, as the name suggests, L2 learners or SLA learners learn it later. Now, because of this, age has remained a long-term variable to study within this domain. So, the comparison between adult and child language is important. Often, the difference between these two groups is based on the availability of universal grammar for adult learners. Often from the formalist, from the formal approaches, perspective of formal linguistics, the idea, the difference between these two was very often, if not always, hinged upon the idea of whether universal grammar is still available for adult learners.

It is there when you are learning your L1. We have discussed at length how universal grammar takes care of multiple problems in language learning and language acquisition. But is it still available when you are learning your second language later in life? That is the question that many have asked. Because of this, the critical period hypothesis has been discussed widely in this domain. Now, there are, of course, different kinds of findings; as of today, as we speak, there are different kinds of findings, and it is not a very clear picture.

So, while many studies found evidence for better ultimate attainment, ultimate attainment for younger learners. Now I have discussed this before that in the case of second language learning, the final proficiency that is achievable by the learners is called ultimate attainment. So, this is the highest level of proficiency that you can achieve. So, when we talk about that, it is because the native-like competence that kind of comparison is no longer made today. Because today we understand that L1 is L1 and L2 is L2.

You might become highly proficient in L2; we still call it ultimate attainment and not native-like. The comparison between monolingual and bilingual speakers is not very popular anymore. So, we stick to this kind of understanding. So, anyway, coming back to our ultimate attainment, there are a large number of studies that have found better UA for younger learners. So, if you start learning your L2 at a young age, the chances are higher that your UA will also be higher.

Data have also come from various studies that show a better initial state for adolescent and adult learners. We have talked about the initial state, interlanguage, and the final state. So,

when we talk about the initial state, it has also been found by many researchers that adolescent learners and adult learners actually learn better, at least in the initial stage. Some studies have even shown that the UA might also be similarly higher. The reason is that older learners are advantaged by greater learning capacity, including better memory for vocabulary, greater analytic ability, and so on.

Because when you are learning your L1, or your first language, you are very young and very small. So, from the prenatal to the early neonatal stage, we have discussed how language learning happens. Now, when you learn a second language at a later stage in life, many of those early stepping stones are already taken care of. You do not need to, you know, go through this; you do not need to reinvent the wheel; you already know what to look for. So, many of the learning mechanisms are already in place, and the second language learner can benefit from that already existing knowledge.

And along with that, of course, the memory, the analytical ability, and so on and so forth. So all of these have been proposed as reasons why we might actually have better results for adult SLA learners. Hence, the idea is that the difference may be quantitative but not qualitative. Meaning that maybe there are some quantitative differences, but at the basic level, at the qualitative level, in terms of whether you know you have the knowledge or not, that may not be compromised. So language acquisition, as a process, basically remains the same throughout the lifespan; that is the idea that this perspective talks about.

It is fine because even though they have, or do not have, access to universal grammar, they have other abilities that are in their favor, giving them an advantage in those counts. As a result, language learning as a process remains the same throughout your life, adjusting a little bit here and there for age-related factors, but largely. So, the difference is primarily quantitative, not qualitative. In recent times, we have seen a lot of counterarguments for using CPH, CPH as in our critical period hypothesis, for adult L2 learners. The very idea of the critical period hypothesis has been attacked.

Why? Because there are many reasons, but primarily a few, we will discuss. First and foremost, the comparison is not fair at all. How can you compare child learners and adult learners? The very amount of input will be different. If I start learning at 20 versus when I start learning at 3 or 4, the amount of input that the learner gets will be vastly different. Hence, it makes no sense to create or use CPH as a variable at all.

They are different things altogether. So, this is not viable at all. That is one. Secondly, on theoretical grounds, it has been argued that native-like attainment is actually possible for some learners with respect to some modules of the grammar. Remember we discussed language as a system containing many subsystems.

So, when we say that adult learners cannot master a second language like a native speaker, we do not mean that they cannot learn any aspect of the language. There are certain parts of the language, certain subsystems within the language that can be mastered much like a native speaker, but there might be some that are not. That is what, theoretically speaking, is another standpoint. So, for example, what are those areas? There is the domain of phrasal semantics, for example. It does not need any critical periods.

It can be learned anytime. There is no bottleneck. However, a bottleneck can be expected in some domains like functional morphology, the syntax-discourse interface, and so on. So, it is not entirely a bad picture. The age might be an important factor, but not always. Some subsystems within language may be possible to master even at a later age.

Another serious counter to CPH came from the bilingual turn, as I was just mentioning, that the comparison between monolingual and bilingual learners and trying to look at adult learners as having some kind of disadvantage changed sometime, you know, when the bilingual turn happened. What is a bilingual term? There is a new perspective that bilinguals should not be compared to monolinguals in any kind of second language acquisition research, but particularly in the critical period-related research. Because the bilingual experience itself is a completely different kind of experience with respect to neural underpinnings. So, when you are learning your L1, the kind of neural pathways that are created, the kind of activation patterns that you see, and the kind of other related phenomena that we see are very different from those of the bilingual. A bilingual is not simply two monolinguals, you know, stitched together.

A bilingual is a very different kind of person with a very interesting and sophisticated neural structure that is part of the bilingual experience. Because bilingual experience is not just about learning the language, but also about knowing that you are learning the culture and a different cognitive mechanism to handle. And then there are other things that are simultaneously happening, for example, attentional mechanisms, cognitive control, executive functions, and so on and so forth. So, there is a lot of interrelation between language learning and those other mental functions. So, that makes bilingual experience a completely different thing compared to monolingual experience.

Hence, they should not be considered different only in terms of just another language, but the very experience at a neural level is different. Hence, this should not be considered as the counter to age-related questions. Secondly, input, just like for children SLA learners, is also very important for adults. Input is about comprehensible input, which we discussed before. Comprehensible primary linguistic data is what we talk about when we discuss input.

Now, many studies have looked at one important question within input, which is variability. If the input has a lot of variability or ambiguity in terms of the grammatical structures, it will have a serious impact on the ultimate attainment of the learners. So, for example, there are many interesting studies, but this one is very well known. So, there is a difference between Mexican Spanish and Chilean Spanish. So, Spanish is spoken in both of these countries. Now, there are various interesting differences between these two languages, even though it is the same Spanish; the way the grammatical realization in certain domains happens differs between these languages. There are very subtle differences, but they are there. So, specifically, the phonetic realization of the plural morphology is what we are talking about here. So, in Mexican Spanish, the plural is overtly realized. So, they have this /-s/ as a marker. So, it is used on nouns, adjectives, and determiners in Mexican Spanish. In Chilean Spanish, depending on various kinds of sociolinguistic variables, this particular morphology may have different kinds of realization. So, it might go through, you know, various kinds of processes like lenition to aspiration or to nothing; as a result of which Chilean Spanish has a very ambiguous, or let us say variable, input when it comes to plural morphology. As a result, what they found was that both younger and older Mexican children were significantly more accurate in using the plural marker than their Chilean counterparts. So, this is one interesting finding with respect to the input where you can have variability.

We are not discussing it in more detail because the input has already been discussed in the previous lecture on when we talked about childhood bilingualism. Let us move on to the interaction. This is yet another important factor in adult SLA. So, what is interaction? The conversational interaction. When we are learning, the interactions between the learner and the teacher, as well as between the learner and the native speaker of that language, such different kinds of interactions may involve the L2 learner.

Now, why is it important? It is important because, to quote Long, it helps learners connect input to internal learning capacity, particularly selective attention and output. This is how learners benefit from interaction. So, they get the input, have already started learning, and already have some internal representation. So, they can verify from the input; they can connect it to various internal learner capacities. For example, selective attention is a very important factor in learning and also in the output.

So, what do learners produce? So, they can basically cross-check what they are learning, how they are learning, and they can also course correct. So, interaction with teachers, native speakers, other learners, etc., helps them make changes in their own linguistic output. So, this is something like exchanging notes. So, interaction is a very important variable in this because it also helps them notice the gaps in their knowledge and then course-correct.

Empirical research also supports the idea that engaging in language interaction facilitates second language development. There are many findings in this regard. For example, in one particular study, they looked at the pace of acquisition. So the more the interaction, the faster you learn your second language.

So there are many studies that have been carried out. Now these are the factors that are, you know, not exactly learner-centric factors. So now we move on to learner-centric factors, starting with motivation. Motivation is almost commonsensical; for you to learn anything, you need to have motivation. You need to want to learn the new language.

So that is important. So, in the case of L2 acquisition, whether it is a social or a tutored setup, you need to have voluntary participation. You need to be attentive; you need to participate in the discussion, interaction, or whatever. Irrespective of what the input is or what the age is, if you are not voluntarily participating, you will not learn. So, that is the domain from which the idea of motivation comes. So, the principal components of motivation, as proposed by scholars, are a significant goal or need, the desire to attain the goal, the perception that learning L2 is relevant for fulfilling the goal, and so on, meeting the need, and so on. So, these are the components of motivation. Based on the type of motivation and why the learner would like to learn a second language, there are different kinds of motivation. Mostly, they are divided into two kinds: integrative and instrumental. So, integrative motivation, as the name suggests, refers to the willingness to learn a language in order to identify with the community that speaks it. So, you want to integrate with the speech community that speaks the L2 as their L1. So, if I am trying to learn English, let us say I am trying very hard to learn American English because I am planning to migrate, and I want to assimilate easily within the host country; that kind of motivation is called integrative motivation.

So, such willingness promotes SLA as many researchers have pointed out for example Robert Gardner. His studies examined factors that affected French and English-speaking Canadians learning a language of the other community. So, through this, he came up with the idea of integrative motivation. On the other hand, you have instrumental motivation, which, as the name suggests, is used for certain kinds of goals; you want to use the L2 as a tool to attain some goals. For example, you might be seeking education, looking for a job, or just trying to increase your knowledge—something of that sort.

So, this motivation also has been found to positively correlate with SLA ultimate attainment. It may be a second language or even a foreign language. So, in this case, the language is learned to meet some requirement or goal, such as getting a job or even talking

to their children's teachers, as has been pointed out by Oxford and Sherin. So, these are the two kinds of motivation. Now, what is it; is it only the learner or learner internal factors, or are there some other perspectives that can also shed light on motivations? It turns out that instructional context also helps with motivation.

A learner's motivation may vary from day to day and from task to task. So, keeping the motivational aspect in mind, teachers often try— as we have discussed before— depending on the various factors that are responsible for second language acquisition and its success, to address the fact that second language teaching is also a very important domain that seeks to create methods, materials, and strategies to fill in those gaps and requirements. Similarly, motivation is important, so an instructional context is also important to create motivation. It has been found that the teachers often create tools, the materials and the methodology in such a way that keep the motivation running. Because in a dull case, if the teacher is not putting in any effort, the student will not feel motivated at all.

This is also almost commonsensical; however, there are empirical studies that have looked into that. Teachers often try to find out and respond to the learners' needs and goals when planning instruction. Then we have aptitude. For learning anything, only motivation will not be enough; you need to have the aptitude and the talent. Somebody might learn, let us say, if you are learning a new sport or game.

You want to learn tennis; you may want to learn, but you simply do not have it in you. Or, I want to learn chess, but I simply do not have the level of intelligence that is needed. So, aptitude is very important alongside motivation; you need both. So, aptitude in terms of language learning translates into these four capacities, as was proposed by Carroll way back in 1965. These factors are phonemic coding ability, inductive language learning ability, grammatical sensibility, and associative memory capacity.

Basically, language learning is also like another skill. Some people learn languages faster, some people take longer, and they can all be broken down into these four types of factors. So, phonemic coding ability is the ability of the learner to code the new input in terms of phonemes. So, this is important because in order to create meaningful input, you need to understand that you need to have the ability to identify the new phonemes. So, this is where you will see that the initial learners will make a lot of mistakes because their L1 is affecting their L2 perception. So, you take your L1 knowledge to L2, and the sounds are different; it takes you a little bit of time.

So, this is why it is very important. In order for you to, if you have that acuity, if you have that ability to identify the new phonemes, then only your input will be meaningful.

Otherwise, it will all be a blur and will not be fully processed. So, that is why it is one of the most important ones. Then comes your inductive language learning and grammatical sensibility. So, once meaningful input is collected, these two systems form the central processing of language structures.

Remember, input, central processing and output we discussed before. So, in terms of central processing, these two things are important. So, inductive language learning abilities and grammatical sensibility. This is how you do this: with these two capacities, you infer a structure from the input, identify patterns, make generalizations, recognize the grammatical functions of elements, and formulate rules. This is the level at which the restructuring occurs. We talked about restructuring as well. I am not getting into it again. So, for the restructuring to happen, you need this kind of acuity; this sensibility and sensitivity are needed at the central processing level. Then comes the associative memory capacity. This refers to the way linguistic items are stored, recalled, and used in L2 output. So, it determines the appropriate selection from among the L2 elements.

So, lexical retrieval, for example, is one area that we are talking about here. So, you need to be able to retrieve the correct word, correct lexical entity, and so on in order for you to be a fluent speaker of the L2. So, these are the primary features of the aptitude that Carol pointed out. Now, to be a good learner, one need not have all four qualities. It is good if somebody has one ability in a better, much more fine-tuned manner and another ability a little less; that is fine. But you need to have at least a few of these four, not all four, but maybe a few of these four. So, this is one important point here.

The other is that these abilities are often connected to your general cognitive ability. They are not the same thing, but they can be connected. So if your general cognitive abilities are higher, the chances are greater that you will be able to make those associations here as well. So these are the two important points as far as our aptitude goes. Now, this is a new theory of complex adaptive systems because we have already seen multiple factors: psychological, cognitive, social, and learner internal factors, and so on and so forth.

All of them come together in a very complex manner for the learner to achieve proficiency in a second language. Now, based on decades of research and taking into account all of these factors, the new theory that has been proposed is called the complex adaptive system theory. This is nothing extraordinarily new. The idea is that within these approaches, language is treated as a complex adaptive system involving multiple agents.

It is not one thing. It is not only input. It is not only about age. It is not only motivation. So, there are multiple layers of factors that work together to get you where you want to be.

So, this system is adaptive in the sense that the speaker's behavior is based on past experiences. So, this is borrowed from the complex systems' understanding of life. So, this is the agent, the organism that is the human who is learning the language, is adaptive.

So, depending on the kind of input that you get and your internal motivation, internal mechanisms, and aptitude, all of them will come together, and through a complex system, you will finally achieve your proficiency. So, it depends on how the interaction happens and how the particular agent is able to benefit from that interaction. This is how the complex adaptive system works. The structures of languages emerge from interacting patterns of experience, social interaction and general cognitive processes. These are the three most important categories; of course, within these, you have many more variables.

So, patterns of experience, social interaction, and general cognitive processes. This is our complex adaptive system. Another type is the processing-based studies. So, processing-based studies also involve processing as in the psycholinguistic experiments that look into how we process our L1 versus L2. So, there are differences between L1 and L2.

Do I process my L1 the same way I process my L2? This is where the processing studies come in. So, processing differences between monolingual native speakers and bilingual or multilingual L2 users is the focus. There are two main views on this. When you are taking processing as the point of departure, there are two main questions regarding the two main viewpoints. One is that L1 and L2 are processed in a similar way because they are primarily the same kind of system.

The other is that the processing of these two is different. These are the two viewpoints. So, in the similar view, the hypothesis says that processing mechanisms in the second language are essentially the same as those in the first language. However, why do we still see the differences when we compare L1 processing with L2 processing? When we say processing, we mean both comprehension and production. So, when you are trying to understand language, you are processing it because you are taking the input and trying to, you know, the central processing unit parses it into components, and you make sense of it and all that. And you are also processing language when you speak; when you are articulating language yourself, both are processing. Now we have seen that literature shows that there are some subtle differences between L1 and L2 processing based on multiple factors.

One of the most important factors is the age of acquisition. Similarly, proficiency is another domain. So why do we see these differences? The idea is that ultimately the processing is the same, but there are some differences, which are called the pressures of bilingualism; however, the processing strategy remains the same. And hence, the idea is

that the difference is again quantitative and not qualitative. On the other hand, the researchers who believe that these two groups are not the same do not process L1 and L2 similarly; from that perspective, a theory has been proposed, which is called the shallow structure hypothesis. The shallow structure hypothesis basically says that there are qualitative differences between L1 and L2 users.

So, what is shallow processing? Shallow processing is the kind of processing that depends on lexical knowledge, pragmatic routines, basic argument structures, etc. So, basically, it is a very shallow level of processing. The L2 learners or L2 speakers cannot and do not process their second language in depth. They process it at a very shallow level. So, what do we mean by shallow? We mean that the processing remains within these confines: lexical knowledge, pragmatic routine, and basic argument structure, but not the more fine-tuned, more complex grammatical structures that native speakers do use.

Now native speakers can also use shallow structure, but according to this hypothesis, L2 speakers have access only to shallow structures and not to the deeper knowledge of the syntactic rules; that is where the difference lies. So native speakers can use it sometimes, but this is the only type available to L2 speakers. So, there are multiple studies on these regarding what the basic structures are that are apparently not available to L2 speakers. However, later findings show that L2 speakers actually have access to them.

Second language learners can also process their L2 in a very complex manner as well. And another interesting counter that has come against the shallow structure hypothesis is from the native speakers themselves. What has been found is that low-educated or low-reading-span or non-proficient native speakers also resort to using semantic-based processing most of the time, meaning shallow processing. So, it is not only that all native speakers will be able to process their language in the deeper part, deeper sense of the syntactic rules. So, the complex syntactic rules are not always accessible to all native speakers. Who do not have access to it? those native speakers who do not have adequate education who have low reading span or who are less proficient.

Typically, this will happen with a lack of education because, with education, you are exposed to more and more complex uses of the same language. So, if you are not exposed to written language, chances are that the native speakers will, even if you are a native speaker, you will not have access to complex syntactic rules. Probably, this is a matter of exposure, whether it is L1 or L2, because the counterargument, as I just said, is that there are L2 speakers of various L2s, such as English or French, and if you have adequate knowledge of the language in terms of its literature and many other things, and if you have read enough and written enough, the chances are higher that your ultimate attainment will approximate that of highly proficient native speakers. So this also does not hold on many

grounds. So, to sum up in this segment, adult SLA is a field where several different perspectives have come together, and we have a very rich literature in this domain.

So, as a result, this field has seen the emergence of new perspectives that consider not only linguistic, social, and psychological perspectives but also the adaptive system lying in the intersection of all of these factors. Processing-based studies are also trying to figure out the finer nuances. Of course, we have said that the shallow structure hypothesis may not always be tenable, but there are many other different kinds of research that bilingual processing looks into where we do see some differences between L1 and L2 processing. So, research is still ongoing. However, now we know that we need to look at the intersection of various factors: language learner internal and learner external.

So, this is where we will sum this up; we will wrap up this lecture. In the next lecture, we will look at some other topics and connected domains. Thank you.