

## **Fundamentals of language Acquisition**

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**Week 08**

**Lecture 040**

Lec 40: New domains

Welcome back. We are in Lecture 5 of Module 8. This is the last lecture of this module. So far, we have looked at various aspects of second language acquisition, including childhood acquisition, adult acquisition, and various responsible factors such as psychological, cognitive, and social factors. And then we have also looked at various learner-centric perspectives, and so forth. We tried to give a brief overview of the field.

Of course, second language acquisition is a vast domain, as I have mentioned before, but we have looked at some of the major issues briefly. Now, before we conclude this module, let us look at some other domains that are connected to second language acquisition. Connected and some newer domains as well as new areas of interest that have come up in recent times. One of them is the third language or the multilingual scenario.

So, we looked at second language acquisition, but we also have scenarios in which people learn more than two languages. So, a third language or more than that as well. So, a new domain of understanding is emerging where a lot of interest has been generated regarding how third language acquisition is different from second language acquisition processes. Are they different? Are they similar? How does it work? What is the relationship between these two? And so on. And also the multilingual scenario: what happens when you speak a number of languages? What are those aspects? That is one domain.

Then, there is another domain called heritage language acquisition. This has also generated a lot of interest of late; we will see it briefly soon. Similarly, some other related questions arise out of multilingualism. For example, the question of language dominance, bilingualism, multilingual processing, and so on arises. So, third language acquisition, as a

domain of research, is interesting because, with a larger number of languages, there are some unique processes that occur.

So, the interaction between complex factors with respect to language 2 and language 3 is why it has become interesting. So, one such factor is the difficulty of keeping the languages separate. How often have you noticed that when you are trying to speak in your L3, L2 comes out? Or if L2 and L3 are somewhat similar on some grounds, you will replace the L3 words with L2 words. It happens. There are many examples in the literature of this happening. That is what takes us to the domain where L2 and L3 are not always easy to distinguish. The second question that has been studied is the mental representation and retrieval of the lexicon in the case of L3. These two are important because, as I said, when you are trying to speak in L3, suddenly L2 lexical entries come out, or without you really consciously doing it, at the structural level also, at the syntactic level, some kind of mixing might happen. So, is the retrieval process for L1 and L2 the same, or are they different? These are the kinds of questions. There is an interesting quote from King Charles I of Spain.

He is believed to have said that I speak Spanish to God, Italian to women, French to men, and German to my horse. I do not know why he said that, but this is what he is credited with saying. The reason we are quoting him is that it takes us to a very interesting domain of multilingualism. For one, he could keep his languages separate. This is not something that is easy because when you speak multiple languages, a little bit of mixing up is always present; it happens very, very often.

So, this in itself is a big thing as far as multilingualism research is concerned because we tend to mix, and he said that he keeps them all separate. Secondly, another important and interesting insight that we gain from this utterance is that he understands the significance of language as a tool. Language is, you know, not just a medium of communication; it is also a tool, a kind of encoding system for values, various kinds of conceptualization processes, and so on. So, when you are able to keep them separate, it also tells us that you understand the significance of that tool very importantly. So, these are the two reasons why we are quoting him.

But this remains an interesting area within language processing studies regarding how, when, and whether you can keep them separate or not. So various perspectives, for example, psycholinguistic, sociolinguistic, and cross-linguistic perspectives, have been utilized to understand L3 processing in humans. Processing, as I have just said, involves

both comprehension and production. So, sociolinguistics, of course, will lead us to the social factors. We have looked at the macro and micro social factors for L2.

Similar factors might also be responsible for learning L3. In fact, in countries like India, it is very common. So, if you are a speaker of one of the smaller languages, you will be speaking that language at home and in your neighborhood, maybe in your peer group, but you will be speaking L2, which is the majority language of the state, let us say, for all other practices and for all formal purposes, like education, jobs, and so on. But you might also learn the other language, which is English, to help you go further in life. So the three languages are automatically included. For many Indians, this is a common occurrence. Now, why did this happen? The primary reason for this happening is the sociolinguistic reason that society is structured that way. We are a multilingual society. So, it is very common for some languages not to be a part of the Eighth Schedule. All of you probably already know that there are some scheduled languages; India has hundreds of languages, but only 22 are part of the Eighth Schedule of the Indian Constitution.

They are called scheduled languages. So, scheduled languages are typically the state official languages. Now, we have a state official language, but each state also has a number of minority or smaller languages. All those people will automatically have to be bilingual because they speak their own language, the state language, and English, which are omnipresent. So, sociolinguistic variables are why multilingualism, trilingualism, and multilingualism have been studied a lot from a sociolinguistic perspective.

From a psycholinguistic perspective, we are more interested in examining the processing differences. For example, there are differences in processing strategies between L2 and L3. For example, in Nagaland, the official state language is, though I often say that Indian states are divided based on linguistic identity. So, each state has an official language that is a native language. This is not the case for Nagaland.

Nagaland has English as the state official language. Nagaland is a very rich place in terms of language and culture. However, the official language is English. Now, as a result, all Naga language speakers speak one Naga language, English, and, interestingly, Nagamese, which is a Creole language. So, for example, in the case of India's Nagaland, Let me just give this example.

So, any Naga person can speak these languages. So, let us say they will speak Ao, they will speak English, and all of them will generally speak Nagamese. Now these are L2 and L3. We do not know which one is L2 and which one is L3. It depends on the person; it depends on the group about which we are talking.

But let us say Ao, Angami, or Sema, or whatever; there are various kinds of Naga languages. That is L1. But alongside that, they use English for various formal purposes and Nagamese for informal ones. So, Nagamese is used for intertribal communication. So, an Angami speaker and an Ao speaker might talk to each other in Nagamese.

They might also use English depending on various factors, such as whether it is a formal setup or not; however, Nagamese is used in various informal conversations in the marketplace, across different tribal groups, and so on. This is interesting from a psycholinguistic perspective because none of them are their native language; none of them are their first language. So, do they process these two languages similarly, or are there any kinds of differences in terms of the processing strategy? This is very interesting, and some people have looked at it. So, the psycholinguistic perspective takes these features into account. From a cross-linguistic perspective, this is the third type of variable. A cross-linguistic perspective will look at whether there are inter-language influences; so, is there transfer—cross-linguistic transfer, let us say—from one language to another? Is your L2 affecting your L3, or is your L3 affecting your L2, and so on and so forth? To understand the mutual relationship between languages and socio-psychological aspects, we need to examine all three features and the interactions among them. So, that is what trilingualism is and where it is going. So, a lot of research is happening in third language acquisition as well, taking into account all these factors.

Now, we will go to heritage language learning. Now, what is heritage language learning? As the name suggests, this is the language of a particular group with which it identifies.

This is a relatively new coinage. It has been taken from the field of education-related research. So, this is a language that various people have defined, but largely the agreement is that this is the language one identifies with—one that has a cultural connection to the speaker. Now, that is the language that is the first language of most people in typical scenarios, but sometimes it may not be the language of the broader society. So, in my case, let us say my heritage language and my first language is the same.

But in my case, my first language is also the language of the broader community. It is possible that, in some cases, the heritage language is not used very widely in society anymore for various reasons. It might have been, and it might have gone through serious language attrition; people may have shifted from L1 to L2; various kinds of things are present. Most importantly, proficiency is not a significant aspect of the definition of a heritage language. As a result, a person may no longer be able to speak his heritage language very well because it is a micro-minority language, let us say.

It is spoken by only a few people; it used to be spoken, but hardly anyone speaks it anymore; yet this is a language that identifies me and with which I identify. So, in those

cases, we will call that language a heritage language. One example that has been given is that Armenian, for instance, is considered a heritage language for American students of Armenian ancestry, even if the students are English-speaking monolinguals. So basically, Armenians who have been born and raised in America are studying at American universities or elsewhere. But they trace their ancestry back to Armenia.

So, they are of Armenian ancestry; even if they do not speak the language, they are all monolingual English speakers, and Armenian is their heritage language. So, that is the definition of a heritage language. Fishman considers this to be a language of personal connections. So, basically, it is a language that defined you some time back. You may or may not be speaking the language anymore, and this language is typically referred to as a heritage language when it is no longer used for broader social purposes.

So, that is another domain. Now, why are we studying the heritage language if nobody speaks it? The reason is that the language one uses is important because it is not used for broader communication. It is understood to have a very different kind of impact on L2 learning. The dominant language typically takes over. So, less proficiency in HL indicates a heritage language. So, when you do not speak the language anymore, or let us say the language is not being transmitted much, the younger generation is not speaking it, and as a result, HL proficiency is low.

So, we might see that there is an impact of these things on L2 learning as well. So, HL speakers may be bilingual if they use their language in some domains, although the majority language remains dominant. Sometimes they may be monolingual in the dominant language due to a lack of exposure to or use of their heritage language. In the case of India, this is very interesting: countless indigenous languages have members or speakers who can be called heritage language speakers. Many of them speak the language a little bit, while others do not, and so on.

So, depending on various factors such as the status of the heritage language, how much of it you speak, and the prestige attached to it, and so on. It is generally believed that the nature of language learning for heritage language learners differs from that of non-heritage language learners. These people have different strategies for trying to learn a second language. Scholars have pointed out linguistic and other differences between HL learners and non-HL learners. Linguistic and other factors, when we say linguistic and other factors, basically refer to the social, psychological, and cognitive aspects connected to learning a second language.

Then comes our bilingual processing; this is also not very new, but comparatively newer

when we are talking about SLA. This is a domain where processing strategies are studied using empirical methods. So language processing deals with comprehension and production, as we have discussed, and there are multiple, nuanced, and layered factors that are part of bilingual language processing; but largely, we look at factors that impact L1 versus L2 processing, variables that determine the speed and accuracy of L2 processing, and switching costs. Switching cost is something that is calculated in terms of whether you are, let us say, speaking in L1 and then switching to L2, and again speaking in L2 and switching back to L1. Now, there is a bit of a time lag that occurs when you switch from one language to another. The difference between switching from L1 to L2 and L2 to L1 is the switching cost, which is the time lag between these two. This is another very important domain in bilingual language processing research. Similarly, the relationship between L2 knowledge and cognitive processes, depending on, for example, proficiency, is an important variable here: proficiency in L2. So, there are multiple models to discuss whether your L2 can access the conceptual storage directly or if it accesses the conceptual storage via your L1. Now, there is a model called the Revised Hierarchical Model that looks into this aspect.

This model says that when your proficiency in L2 is lower, your processing speed and accuracy tend to be lower as well. At the same time, we may not be able to access the conceptual storage directly. But as the proficiency level increases, the difference in switching costs disappears. We also process them similarly as because we access the conceptual storage directly. So, these are multiple issues in bilingual processing that are being studied.

Another connected domain with respect to bilingual processing is the impact of bilingualism. This is another well-researched and very rich domain of knowledge. This idea, this domain looks at the effects of bilingualism on the human mind and its faculties. So, this might sound a little odd as to why learning another language has an impact on your mental faculties. Turns out it does. So, the impact happens in various levels at the linguistic level as well as at the cognitive level. For example, linguistic level studies have found that bilingualism, trilingualism, and multilingualism are beneficial. This helps increase our metalinguistic awareness. So, in terms of linguistics, there are some changes and some impacts of learning more than one language. In the cognitive domain, there is something called cognitive control.

So, cognitive control mechanisms like executive function and attentional mechanisms have a very interesting interaction with learning a second language and with bilingualism. This has already been found. This is more pronounced in the case of children, regarding where you need executive control mechanisms to be in place. So, bilinguals have been

found to have higher cognitive control in certain situations. In neural terms, there are also differences; thus, this is an important domain. Both functional and morphological changes have been noticed in terms of neural pathways and the neural signature. So, which areas in the brain are affected, or let us say activated, while processing language—your L1 versus which areas are used or activated when you process your L2—are different; they are not always the same. In fact, a large number of findings point out that for L2 processing, we do use many of the executive control-related domains in the human brain. So, as a result, we also have certain structural changes. So, the impact of bilingualism can be seen in many domains, as we have just seen.

So, metalinguistic abilities, cognitive control abilities, as well as functional and morphological changes, have also been noted with respect to neural structures. So, as a result of which this bilingual processing as well as the impact of bilingualism are important domains that are connected to our second language acquisition. These are all process-based studies. So, primarily, psycholinguistics and cognitive neuroscience are the domains that look at these factors.

These are newer domains. Another interesting domain that has been studied within second language acquisition is the case of international adoptees. International adoptees are an interesting area; this is where children from one culture and one country are adopted in different countries. So, typically, children from low-resource or disadvantaged situations are adopted into other, more advanced countries, and so on. This has been around for a long time; it is nothing new, but of late, the number of international adoptees has increased very significantly. So, the 2001 data show that more than 19,000 children were adopted internationally.

So, when they change, they are adopted from one country to another. They are not always in the same age group. Some children get adopted in early childhood, some as toddlers, and some even in the later parts of their lives. They are adopted by another family in a different country and culture. So, often this leads to multiple factors that have been studied in this. One of them is the arrest of their L1, because once you leave your country, leave your culture, and leave everything behind, your L1 does not develop very well. So, many scholars have proposed that this has a negative impact on their acquisition of any new language. So, be it known that in the new culture, when they go to a new language setting, their lack of proficiency in their L1 has an impact on their acquisition of L2. So, in fact, according to some reports, many of these children actually need speech and language

services because they have serious problems acquiring language; this has been studied. So, as a result, a lot of research has been going on in these domains to look at various issues primarily featuring the language pathology of international adoptees, whether the non-development of their L1 is affecting their learning of L2; this is relevant only for the children.

But in the case of children who have learned the L2 to some extent and the L1 to some extent, how does that affect their L2? That is another domain. Similarly, if the children have left their country and moved to another at a stage when L1 was developing, and then suddenly L1 is replaced by another language. Now, is this new language learned as L1 or as L2? This is another question that has been studied a lot in this particular domain. And then, of course, we have the question of the impact of the pre-adoptive environment. Pre-adoptive environments often involve children coming from disadvantaged situations, trying circumstances, and sometimes trauma, along with various other challenges.

So, the impact of those environmental, you know, social factors—how it affects their language learning in later stages—has been another domain. Then, the difference between early childhood adoptees and adult or later adoptees, as well as the impact of the country of origin on the cognitive, educational, and language outcomes of both international adoptees, children, and adult adoptees. So, multiple factors have been studied within this broader domain, including international adoptees, both children and adults. Sometimes they get adopted later in life as well. Many factors, including multiple social, psychological, cognitive, and even pathological perspectives, have been studied within this.

So, to conclude this module, In this module, we have looked at various aspects of SLA, covering social factors, childhood SLA, adult SLA, and various related domains. So with this, we complete this module; both modules 7 and 8 have looked at second language acquisition. In the next module, we will take up some other topics. Thank you.