Psychology Of Bilingualism And Multilingualism
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Week - 01
Lecture – 03

Hello and welcome to the course introduction of the psychology of bilingualism and multilingualism. I am Dr. Ark Verma from the Department of Cognitive Sciences at IIT Kanpur. As you know in this course I am going to talk to you about different aspects of how an individual learns to use multiple languages, what are the different aspects related to it and also try and understand bilingualism more as a phenomena at different levels, the neuroscience level, psycholinguistic level, at the level of linguistics to a certain extent, the socio-political and the socio-linguistics aspects of bilingualism as well. In today's lecture I will talk to you about different classifications and different types of bilingualism that may emerge and certain phenomena that are associated with it. Let us begin.

Now a very interesting aspect of bi or multilingualism and I have said that I am basically going to use these terms interchangeably is the interaction between the languages of the individual. Given that a single individual, a certain person learns two separate languages and as I have discussed in the previous lecture that a language sort of brings with itself an entire system. A language is a system of symbols and rules within a particular you know framework. Say for example, Hindi has particular sounds, we sort of combine those sounds to create Hindi words.

It has a very specific syntax and basically there is an entire you know landscape within which a particular language operates. Now imagine that you are mixing this entire particular landscape with the landscape of a different language. Say for example, I am a Hindi-English bilingual and I know English sounds as well and I combine those English sounds to create English words, I use the English syntax to create English sentences. So what really is happening in my head probably is that both of these sort of independent or you know bonafide language systems will certainly find ways to interact with each other because they are being executed by the same person or if I may use the metaphor they are housed in the same brain. So one of the very interesting aspects of bilingualism is basically to try and understand how the two languages of an individual interact with each other.

How does an individual let us say control or modify this interaction between his or her two languages. For example, it is quite common for bilinguals to code switch. It is quite common for bilinguals basically to use two languages while speaking sometimes the same person if he knows that the person knows both of these known languages. I often switch

between Hindi and English when I am talking to my students because I understand that they speak or understand both Hindi and English. This is very interesting because for one it is interesting in the sense that the single speaker can continue to speak in one language without the interference of the other but when he or she decides he can actually create something of a code mixed language wherein we are using words of Hindi using the syntax of English or the words of English using the syntax of Hindi and that is if you see and look around has commonly been referred to as English which a lot of you know people of this generation   speak.

So the interaction between the two languages happens at several different levels some of which are the sounds the other is the words you know we constantly keep borrowing words from the languages that we know and also at the level of syntax. As I said it is quite common that people who know two or more languages intermix or interchangeably use the syntax of either of the languages that they know. So in a sense basically what is happening and what happens you know after a certain point of time when an individual has sort of picked up these languages is that both of these languages start influencing each other to a certain extent or they continue influencing each other to a certain extent. And for psycholinguistics it is a very interesting question as to what really happens in an individual's linguistic behaviour and their linguistic choices when they are sort of using the two languages at the same time or say for example when they are using these two have been using these two languages for a larger period of time. Now an interesting question therefore arrives is are these languages that an individual learns very similar to each other or they are different to each other that brings us to the concept of linguistic diversity.

Now the concept of linguistic diversity is interesting to understand before we start with the annals of bilingualism is because we need to understand what is the nature of these systems that we are proposing interact. Are the languages pretty much identical copies of each other in the sense that although the words and the sounds may be different but the system of putting together the sounds into words or words into sentences is pretty much the same. Does that really happen? Are the languages actually identical to each other or as some might say that there are these different languages in the world India alone probably houses more than 2000 different languages and across the world they might be tens of thousands of different languages some of which are known and studied while some are still understudied and people are discovering new languages and some languages are sort of you know dying off because the speakers are you know there are very few speakers that speak those languages anymore. So this question is interesting to ponder because once you start looking at the behaviour of a bilingual you would also need to understand a little bit about the systems that we are talking about. So the concept of linguistic diversity basically states that there are while there are several different languages in the world they might be very   similar   to   each   other   as   far   as   the   overall   framework   is   concerned.

They may seem to sort of be based upon very similar rules very common rules and this is an idea that is not a very new idea it has been proposed earlier as well and one of the key proponents of this idea has been Noam Chomsky well-known linguist who is given the concept of what is referred to as universal grammar. Now Chomsky's concept of universal grammar without going into a lot of detail of that basically says that the entire human species possesses this faculty of language or this capability of being able to produce speech and language across the board, but there are certain there is something referred to as a universal you know grammar. This universal grammar is basically the let us say blueprint of all the languages that exist and are spoken by humans. The idea is that this universal grammar imbibes the rules or the framework within which any language spoken on the face of this earth will sort of function. So every language would maybe have a certain kind of word order will have certain kinds of word categories nouns, verbs, adverbs, adjectives and so on and basically it is within those rules.

Say for example if you are saying a sentence that okay the cat is chasing the mouse in this sentence there is an agent there is a patient and there is an action that is happening. So the idea of universal grammar is that broadly the framework within which these different languages function is pretty much the same not identical, but let us say pretty much very very similar to each other and it is only that the parameters of different languages say for example their specific characteristics or the way they represent these different concepts word categories, word order and so on may differ from each other. An example could be that in Hindi the canonical or the typical word order is the subject verb object order say for example Ram ne Sham ko Khana Khilaya so subject object verb. So Ram is the subject, Sham is the object and Khana Khilaya becomes the verb. As in English the canonical word order is a subject verb object which is basically the cat is chasing the rat. So the cat is the object subject the verb is the chasing and the rat is the object. So you can see that there are differences between word order of the two languages, but the idea is irrespective of the word order they are representing reality in a particular manner. So this is one of the ideas that you have to be mindful when you are looking at different languages. Also an interesting and slightly older idea was presented by Charles Hockett who sort of who presented what are called the design features of a language. He basically gave 16 features of communication systems and some of which were referred to as the design features which will apply to human languages as well and Hockett proposed that any language spoken on the face of this earth will basically have these specific features that they will adhere   to.

So for example something like semanticity or temporal and spatial displacement or arbitrariness for that matter are some of the design features that would apply to any of these languages that we are talking about be it English, Hindi, Urdu, Tamil, Telugu,

Malayalam or Russian, French, Chinese, Japanese and so on. There will be some of there will be these design features which will be common to all the languages. To this extent what we are saying is while the languages of a bilingual will interact with each other they would the interaction would not be as drastic as to violate some of the basic underlying principles as laid out in Chomsky's Universal Grammar or Hockett's design principles of the language. Now the another this approach basically is referred to the approach that I have sort of referring to just now is referred to as the language universal approach. Now language universal approach basically says as the you know name suggests that all languages basically would share the same design features they same design features and as I said will work within a certain specified framework.

Now these things or this theory derives heavily from Chomsky's idea of an innate language organ that the species has you know inherited through evolution which sort of allows us to learn different languages, but the broader framework within which all the languages of the human beings work will pretty much be the same. Under this approach different languages are in fact different representational systems of the same universal and biologically designed features. So the idea is that human language or human speech for that matter is basically a system that is in some sense you could say a closed system although different representations of that are possible as manifested in the different languages of the world. There are also a couple of arguments that you know put forward this linguistic diversity you know thing which basically you know try to explain where this linguistic diversity may be stemming from. Say for example, a historical approach about linguistic diversity proposes that as languages evolved maybe as a species we inherited the same framework and so on, but as people sort of started travelling away from each other different languages started taking different evolutionary routes and as languages evolved they over time gradually got differentiated from each other.

So, through various ways say for example, the sounds became differentiated, the grammatical rules became differentiated, the idea as to how speakers in a particular group interact with each other may have influenced the different evolution of these languages. So, in some sense although the evolutionary history might be traced to the you know similar instances, but obviously languages diverged and got differentiated from each other and through speakers different and also this you know evolution or this diversity sort of comes into play when you talk about creation of new languages. Say for example, when different speaker groups come in contact with each other it also happens that new languages are being created. Say for example, you know speakers of different languages Persian and Khadiboli you know came together several years ago in India and a new language called Urdu was sort of brought up gradually alright. So, this kind of understanding of linguistic diversity has you know led to different schemes of classifying these languages and there are 3 or 2 or 3 different types of classification that we can talk about.

One of them is based on the historical relatedness of languages say for example, if you Google or you go on Wikipedia you will find language trees. These language trees basically talk about the genetic history or the evolutionary history of these languages as to how they have been related to each other and there are these several language families that we will come across. Say for example, the Indo European language families, the Indo Aryan language families or the Afro Asian language families. The idea is that all of these language families basically reflect a descent from a common language a very old one which sort of differentiated into different you know branches and different languages. It is pretty much if you want to you know take an example is like river when it starts from its source gradually divides into different tributaries which eventually you know which eventually become   different   rivers   and   different   entities   on   their   own.

Now the other classification that is there is called the typological classification or the typological classification which is based on the similarity of structural features. So, different languages might also be similar across the lines of the structural features that they have for example, word order, the word categories and so on and based on how similarly or how differently they manifest these concepts these languages can be you know classified as being typologically similar or typologically very different to each other. Another classification that we can talk about is called the aerial classification which is pretty much a geographical classification of the languages which is based upon the geographical closeness and contact between different language speaking communities. For example, the Balkan languages or the Caucasian languages, East Asian languages, South Indian languages and so on and so forth. Although these languages are members of the same you know aerial geographically proximal you know groups of speakers they may or may not be related genetically to each other but they have sort of converged in history due   to   prolong   contacts   with   each   other.

So, it is basically languages that may or may not have evolved through the same language tree but because the speakers came in contact over and stayed together for longer periods of time they have become proximally or let us say a really close to each other. Now another slightly different approach to linguistic diversity relies on paying more attention to differences between human languages rather than their commonalities and it basically focuses on describing how linguistic diversity manifests itself in everyday interactions. Now the idea is when you look at Chomsky's idea of the universal grammar or Hockett's idea of you know design features we are focusing more on how these languages are similar to each other. But there is obviously some merit in looking at how the different languages are different from each other and how do these differences manifest in speakers linguistic behaviors. Now the proponents of this diversity approach take into account social and political considerations   that allow the classification of languages into languages and

dialects.

Let us say for example and also you will see that in certain regions of the world although you know speakers have been living in contact with each other for longer time but languages or speaker groups strive for a different identity strive for being differentiated from each other rather than being clubbed into the same group. A very interesting case for example is the Chinese dialects Mandarin and Cantonese. So, Mandarin speakers and Cantonese speakers sort of identify differently from each other. Now one of the things that we can sort of talk about in this whole debate about language diversity or language commonality is to ponder about the situations where speakers of different languages come in contact with each other and how does this you know how does this contact affect their different languages or the languages that they sort of speak. Now when speakers of different languages come into contact with each other as groups or societies or sometimes just as you know a bunch of individuals there are different aspects of bilingualism or multilingualism that may emerge.

Let us look at some of those. Now one of these things is called territorial bilingualism or multilingualism and territorial bilingualism and multilingualism typically happens when groups of speakers of specific languages find themselves within their own geographically and politically defined territories. It is almost like saying oh this area is inhabited by speakers of language A whereas adjoining area is you know inhabited by speakers of language B. It is very common in a few countries of the world say for example in Belgium as I said probably in one of the previous lectures that the south of Belgium speaks mainly French whereas the northern cities of Belgium say for example Ghent, Antwerp and Bruges etc speak mainly Flemish. Similarly in Canada parts of Canada speak French whereas others speak English.

In India also you can see that there are organizations where certain states have their own specific languages whereas others have different languages. Similarly another phenomena that we could talk about is the phenomena referred to as diglossia where two or more languages are spoken by the same community at the community level but these two languages serve different purposes and serve different sections of the society. For example in India we predominantly use and I am talking mainly of the northern belt because this is where I come from predominantly use Hindi to talk to each other but they also for example you know for example in a particular religious group use Sanskrit for all the you know rituals of you know worshipping and this and you know the other rituals associated with it. So, Sanskrit serves a particular purpose whereas Hindi serves a particular commonplace way of talking and so on. So, in a lot of ways it can be seen that there the two languages coexist in the society but they complement each other with respect to the function that each of them are playing in the framework of the society.

Now there are also instances where parts of the world have what is called widespread multilingualism. In several countries many different languages are spoken simultaneously within and between groups for example and they exist coexist with each other and are used for wider communication between communities. Say for example Spanish and English in the United States of America where speakers who have sort of descended from you know Mexico and nearby regions speak Spanish and you know the Americans speak English. Similarly, similarly for example in the south of India you know if you go while there are these you know different states which have their own languages. So, for example Kannada is spoken in Karnataka you know Malayalam is spoken in Kerala you know Telugu is spoken in Telangana, Andhra Pradesh and so on.

But there is a lot of intermixing between these languages Tamil is spoken in Tamil Nadu. There is a lot of coexistence of languages if you are in a cosmopolitan city like Bengaluru you will see that a lot of speakers although they might be healing from maybe Tamil Nadu or Kerala or Hyderabad they would be knowing their own language but would also be you know would also have learned to speak in Kannada for some of their purposes. So, a lot of these languages will coexist and would be used interchangeably because everybody knows all of these languages at the same time. And this is also a source of you know linguistic diversity is also a source of interaction between different languages and it is also a source of say for example changes structural or otherwise that come between these languages. Now one of the other things that we should you know probably focus about and talk a little bit about is instances of individual you know bilingualism.

For instance different individuals and we have been talking about societies and we have talking about groups so far but different individuals also if you know you focus on the individual as a subject acquire or learn to speak two or more languages for different reasons. For example if an individual is born to bilingual parents you know the mother speaks a different language the father speaks a different language the individual will inevitably be exposed to both languages and learn the two languages. It also happens here for example that you know for a lot of us who were born in Hindi speaking families but were sent to English medium instruction schools. So, we picked up one language at home and the other at school almost simultaneously because school starts very early and in that sense that became a factor for us to learn English and continue using it for education and vocation going forward. Similarly it also happens say for example that people migrate you know for job or something for better job prospects for opportunities for higher studies to different countries and they pick up the language of that country that one is born.

Say for example a lot of people from India go to Russia for you know medical studies for a lot of people go to the United States or other English speaking countries for higher

education and job prospects and even though they might not have been using English so much you know while they were living in different parts of India they all sort of would pick up and start using English predominantly because that is the language that is spoken at their place of work. Now there are different factors that would govern how individuals would you know pick up languages or say for example their ability to pick up different languages at the same time. For example you know biological factors such as the age at which an individual is acquiring a language, the working memory capacity, the general intelligence, the verbal aptitude there are so many of these factors that govern the success or the extent to which a particular individual will be able to learn a language. More often than not if you are talking about younger children and if everything is fine and the brain and everything is working normally they would be very successful at you know learning any number of languages. Sometimes however there might be anomalies which sort of push chill you know which sort of make it slightly difficult for them to pick up these languages.

Now in this sense a biological notion is there which is referred to as the critical period hypothesis. The critical period hypothesis was put forward by Lenberg in 1967 and it basically says that there is an ideal period of time within which an individual can acquire a language. Typically between 3 to 7 years during which time if an individual is not exposed to a linguistically rich environment and is not exposed to a lot of linguistic input then the individual will not be able to learn a language or any language for that matter after that time. And again this has more to do with the first language acquisition than the second language because obviously people can learn a second language much after their 7 or 8 years of age but typically or biologically speaking this is pretty much the best time for an individual to be exposed to the first language obviously but also a second or a third language. Within this period if individuals are exposed to different languages it is a high chance that they will be able to successfully learn 1, 2, 3 you know a number of languages that they are exposed to without any significant delay or without any significant deterioration in the quality of any of these languages that they would learn.

Now there are also concerns and there are also discussions about the mental representations of the two languages of the bilingual in the brain. As I was saying I know both Hindi and English and both of them reside in my brain do they interact with each other, do they influence each other, do they interfere with each other and these are questions that have been asked by researchers. Say for example people have wondered and we will discuss them you know in much more detail as we go forward at whether there is a shared or a separate storage of the different aspects of language. Do the sounds of the two languages that I know stored separately or in a shared manner? Do the concepts that I have in both my languages stored separately or in a shared manner? And these are questions and once we start you know going to comprehension production we will do this

in a lot more detail that how is this happening, how are the two languages so to speak stored in our brain and again not really in a physical sense whatsoever. So there has been you know a lot of discussion about how do we sort of access these languages.

Is there common combined store of orthography as I said is there common store of phonology that is sound, is there a common conceptual store that whichever way we access the conceptual store is the same. Say for example take the example of an apple whether I call an apple a same or an apple I am pretty much talking about the same fruit, I am pretty much accessing the same conceptual knowledge that I have about the fruit. So it is you know red or green in colors you know is sweet or sometimes a little sour is found in you know regions of India like Himachal Pradesh or in California and so on and so forth. These are some of the questions that bilingual researchers have wondered a lot about and there is a lot of research about these issues that we will talk about in the following lectures. Also there is been a bunch of discussion about differences in the speakers level of proficiency, the age at which they have acquired these languages and how these factors moderate the you know the interaction of the languages between the individual.

I have talked about proficiency in the previous lecture in detail and it is a very interesting a very important variable to be mindful of when we are talking about bilinguals. Finally a very important consideration when discussing bilingualism and multilingualism is also of as I said in the last lecture is about the speakers, the listeners and the environmental setting. Bilingual speakers or multilingual speakers often you know sort of oscillate between very monolingual modes when they are comfortable speaking only in one language to lose bilingual or multilingual mode where if they know that the speaker and the setting allows for speaking you know in either of their known languages you will find that bilingual speakers say for example in informal settings will switch on and off into a second or a third language irrespective basically taking into consideration as to who the audience is and what the setting of the environment is. So, you will see phenomena like code switching, code mixing and so on very commonly among bilinguals. So, that is all that I wanted to share in today's lecture I will see you in another one. Keep following.