IIT Madras
BSc Degree

Welcome to the class. Today I wish to formally welcome you to this course and in order to do that, I want to speak with you about learning language. We are setting out on a journey to learn English, in particular basic English, and its fundamental concepts. This course is part of larger program on data science and computer programming.

What you are going to learn in this course is also going to help implications for lot of other things that you are going to look at and if you wish, you will definitely get substantial stuff in this course which will help you apply learning from this course, learning about language, to understanding how data works. Because we are also going to underline how language works. And for, in that direction today I want to speak to you about learning language.

There is another objective of this discussion today. We will discuss the details of what we are going to do in this course. But more important aspect in my understanding, is to discuss how we learn and what we do, what we must do to learn, in this case English, effectively. What are things that we pay specific attention to in order to have more impactful understanding and therefore impressive output, impressive production that is impressive speech?

Key thing is to pay attention to things. I'll come back to that but first I wish to talk to you about how language learning works. Many of you must have thought about language learning. We can still go back and talk about language. What is language? Language is one of the most sophisticated product of human mind. Human mind appears to be a very complex entity but if you look at the process of learning of language you realize that such a complex entity likes simplicity, likes pattern.

Understanding patterns that requires finding out pattern underlying language in the reverse direction is all about learning language. All human children are born with this capacity to learn language. And therefore, as a child we learn language automatically.

Early and late learning

Learning language early
(before 10 years of age!)
Automatic and effortless

Learning language late
(after 15 years of age!)
Requires efforts

3 years or 4 years of age children start speaking, that is, they start speaking words, then they start speaking 2 words, sequence of 2 words, and then small phrases and eventually before we realize, children start speaking sentences. So, this is what we mean when we say children learn language automatically. Keep in mind as a child, every child every normal human child, is born with a capacity to learn a language. This is also known as acquisition.

We want to make a distinction between acquisition and learning. The definition, the difference is very simple. The difference is something that happens automatically, that is something we acquire is called acquisition and when we have to put in efforts to do something, that is called learning. When children learn language, that is called acquisition and when grown up people learn language, that is called learning.
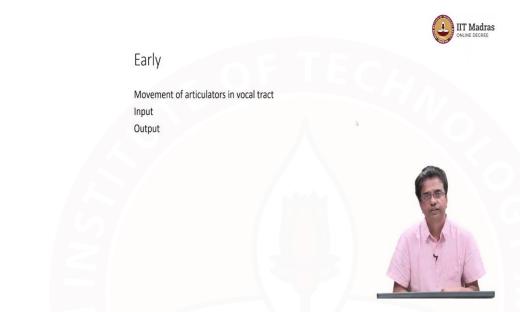
So, that is the difference between acquisition of language and learning of language. For a child it works differently, for grown up people it works differently. And very briefly I would like to talk you about that part. I want you to divide learning of language in 2 parts, learning of language that happens before 10 years of age and learning of language that happens after 15 years of age. So, whatever happens in the process of learning or acquisition before 10 years of age is considered automatic and effortless.

When we learn language after 15 years of age, that requires efforts and this is the distinction that we are trying to make. I am specifically not talking about what happens between 10 to 15 years,

that is the transition time. We can still, I do not intend that between 10 to 15 years age people do not learn language. So, I am trying to draw this line for my purpose before 10 years and after 15 years. We can draw it also in the following way like before 12 years after 12 years. So, these numbers are not important I am just making, I am just drawing two lines here.

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So early, what I discussed with you, it is effortless, it is automatic because the input children receive from hearing, by hearing things around them, results into output. This input in terms of data, in terms of language, is processed in human mind which is also known as computation of language in human mind and the result is known as output, that is the language that we speak. So the result is naturally result of computation in human mind.

'Learning Language is child's play'

- A normal human child is hardwired to acquire language from the immediate environment with the help of Language Acquisition Device (LAD) and Universal Grammar (UG).

So this input does not have to be, is not really intended or designed towards learning. So, it is random input, fuzzy input, it is very limited in quantity in nature and the computation processes in such a way that the output is systematic and grammatical and meaningful. So, and also it is infinite. This picture gives you that idea, that we have input which comes from immediate society. It is very limited in quantity and very fuzzy in nature and output is grammatical and infinite.

And the processing takes place in human mind which is very important part for learning and this what we know as the process of learning for children. This process remains available for grown up people as well, but lot of other things happen. And this process becomes weaker and weaker for grown up people, that is, after, if we are making an effort to learn language, after 15 years of age.

So, what happens after 15 years of age is, think about it, by this time, by the time we make an effort to learn another language, we already have language existing with us. So, not because of that, but because it becomes weaker we have to put conscious efforts to learn. And we have to have, that effort is also combined with specific and directed motivations. So, I will describe this to you because this is going to apply to us.

We already have language. Whether you are learning, whether you are going to make an effort to learn English from the scratch as a fresher or you are going to work on improving it. I am quite clear in my understanding that most of you already speak English. So, it will be safe to assume that you are going, this course is going to help you improve what you know. So, for the purpose of this course everybody falls in these criteria, this part that we are going to make efforts in learning and improving language after 15 years of age.

And the reason why I explained what happens before 15 years is because whatever we learn as language before 15 years of age is subconscious process. And therefore, we have to rely on exploiting that subconscious process most of the time. What happens, how do we exploit that existing subconscious process for the purpose of learning a new language is by observing patterns. And as a grownup, it is easy for us to look up patterns and apply those patterns.

If we do just these two, look at the pattern and apply the pattern, and allow the subconscious process to function, it has impact and it results into learning. We do not have to memorize anything, we do not have to do anything which is tough to do. Remember just two things: observe the patterns, try to understand the pattern, apply the pattern and leave the subconscious process to function.

This is part of learning by putting in efforts for grownup people linguistically adult people after 15 years of age. We also have specific interest and motivation in learning therefore we are here, therefore we are going to make this effort. If you have made an attempt in learning any language including English before, go back and check whether or not you had specific and directed motivation for doing so. I am positive you will find the answer in affirmative.

For grownup people, it was very easy to see patterns. Children figure out patterns in their subconscious. Grownup people consciously observe the pattern and see that. Therefore, grownup people have to be allowed to see patterns and we need to talk about patterns for learning second, learning as grownup person. At this point it is also important to understand that when we speak and by the age of 15 years with the sound system of the existing language, the language that we learned before 10 years of age, the underlying sound system of that language has conditioned our vocal tract. And therefore, we are native speakers of our first language. That conditioning is so permanent and rigid that it will not allow us to get the sound patterns of the new language. And that must not worry us, that must not bother us. But still if we understand the differences of those sound patterns and try to bring some of them in, we are still going to make changes by putting in conscious efforts but it is not going to change it completely. Therefore understanding this part helps you speak the way we speak. We do not need to change the way we speak. Rather, we can only improve the way we speak. We do not have to sound like anybody else to be very specific, as emphatic as a good impressive communicator or impressive speaker of English, you do not have to sound like an American or British or Australian. You have to sound like yourself and this is quite scientific, this is how it works. And then your, this is going to be useful to you, from here we start observing patterns. We need to understand this much about learning.

So, one more time: we need to understand how learning of language works before 10 years of age. I have explained that to you. We need to understand how it works after 15 years and we need to put them together, that is, we have to allow the subconscious to function with conscious efforts. This will result in learning. We will work at all levels of learning in this course namely we will work on improving speaking, we will work on improving writing, we will also work on improving reading.

And eventually, what is also required is to improve listening. Many of you already know, almost all of you would know, a good speaker must be a good listener. We need to practice it and we need to translate this into the process of learning. We do not mean it in a metaphorical sense, we mean it in literal sense. So, I am going to talk about 3-4 broader points which are going to be essential for learning after 15 years of age.

And doing these things have, I can say, dramatic impact on the process of learning. These things are listening. I invite you to listen to any audio material in English at least for half an hour every day. Maybe you are already doing so. But if you are not doing, you have to start. If you are already working on it, you have to do that carefully. This listening must not be devoid of attention. I suggest you pay attention to what you are listening, that is the way people, the speaker, speaks in that audio or video.

Preferably, you should listen to news bulletins or for that matter anything else will also work but there must be some audio materials. For half an hour, 30 minutes, at least 30 minutes every day. Likewise, you need to read at least half an hour every day. You read any kind of literature that interests you, you can read story, novels or any other kind of book. You may be interested in science fiction, politics, you can read a newspaper, you can read a story book, fine.

I specifically draw your attention to a combination of two things: any piece of literature and everyday regular reading of newspapers. There is a reason why I invite you to read newspapers. Newspapers have simple active affirmative sentences in them. They have good impact on learning. With these two things, that is listening and reading, what improves in subconscious is speaking. So, you do not have to make conscious effort of speaking. You have to allow these things to operate in your subconscious, which will have impact on whatever you speak.

But yes you have to keep speaking and I am sure you keep doing that anyway. You have to just do more on listening and reading, to in, for them to influence your speaking. And writing is a completely different story. We will talk about that as well but I want to draw a distinction between them. See, learning to speak and learning to listen, listening is prerequisite to speaking. These are combined things, I do not want to go into the details of that, but learning to write is a very specific skill.

There are millions of people all over the world who speak the language but they do not write. Therefore, writing is a specific skill. We will work on writing as well. We will talk about how and what to do for improving our writing skills as well but primarily, I invite you to pay attention to listening, to do practice on listening and reading for influential and effective speaking. So, these are the simple things that we can do hereafter along with the patterns that we are going to discuss, to learn.

I hope this discussion is going to be useful for you in following things that we are going to do in this course. One more time I welcome you to this course on basic English for your degree in data science in computer programming IIT madras we will also detail out things that we are going to do throughout the course. Thank you.