Literary and Cultural Disability Studies: An Exploration Prof. Hemachandran Karah Department of Humanities and Social Sciences Indian Institute of Technology - Madras

Lecture – 31
ISL Workshop Day 3 – Part 1
Sign Vocabulary and the Dictionary of ISL

Hello, welcome all of you again. Congratulations. We have got into the third day of our program and today is more exciting than the previous days because we are going to enter into the heart of language question. Well, we will start with the history of sign language. We have pioneering contributors to that field here, those who design dictionaries and who understand lexicography more than anybody else.

You know in the 21st century in our time, there are more and more varieties of dictionaries concerning entertainment, sport, discipline-specific dictionaries, lifestyle, culture are dictionaries that are self-reflexive and dictionaries that are given professional meanings and those that are concerned with synonyms, word roots, so many things and they all involve a deep connect with cultures, speakers of the language, writers and the large human world, only then this many diverse ways of looking at language and the words may emerge.

Today we have even put a nuanced approach to it because the people here not only engaged with words, but words in signed forms and their evolution via human body language. So that is how I understand it at the moment that with you I am going to travel with them to explore more. With us we have Nita, Gopalakrishnan sir, Shoumik, I think Samir also is joining us at the end of the program. Over to Nita. Yes, thank you.

We will straightaway I think like you said dive into looking at how Indian sign language started and how it has travelled through the years to be documented, have dictionaries that are in place now. So, I will now request Mr Gopalakrishnan to take us through history and how sign language has evolved. Namaste to everyone. I am Gopalakrishnan. So, I hope you all remember my name. Very happy to meet all of you again for the third class in Indian sign language.

So, I am going to talk about the history of Indian sign language. You know when the British had controlled India, so at that point in time, we did not have a proper Indian sign language. So, it was a kind of gestural and arm sign language and after that when the British came to India, they saw that there was not any proper sign language being used. So, we have a lot of regional languages.

So, it will be very difficult for us to have sign language, signs for all the regional languages. So when the British people had come here, they had started a school for the deaf and then they started teaching the British sign language. In 1947 after we got our independence we just had very few schools at that point in time, schools for the deaf, special schools.

So, we started using our alphabet . So, certain people had kind of changed some of the letters, some of the alphabet that British people were using. So for example A, O and J; some of those letters were signed little different. Later on, I studied at Little Flower Convent School in Chennai where sign language was not used. They were completely against sign language and were using the oral method.

So, during school I never used sign language, Okay let us continue. In 1965 during my next when I was selected as part of the Indian Olympic contingent because I was feeling guilty, all of us, we were all the deaf people who were in the team elected to use the sign language. So, we used a very little bit of signs, we did more on a score list and we used to speak and all that. So when we got the back when the van driver who is a caring person he was driving and signing also to another deaf person.

So, I asked him what they were signing? So they said they were signing American signs, they were using American sign language. So at that point in time, I thought about what type of sign language India is using. So probably India using Indian sign language. So, for example, during that event we had people from Britain, we had people from England and Japan. So, they all had their own sign languages like British sign language, Chinese sign language and all the sign languages are completely different.

But when those people came together during the event, they were able to communicate with each other, around 60 to 70% of them were able to communicate using some common signs, probably 40% of the signs were not being able to understand and they were not understood full because it was more locally and culturally connected with their particular country.

And during the inaugural session, each and every country had their own sign language interpreter. There was an American sign language interpreter, then a national sign interpreter and I saw all of them signing, but I could not understand anything. They were really fast when they were signing. There was one person who was interpreting international signs, but that was more gestural, so I could not understand anything.

So after I came back to India, I was really engaged, I was very excited about the sign languages which is all there and here, there was nothing, not yet developed as such. So in schools, most of the schools, all the schools, the deaf schools relegate sign language, they did not allow us to use sign language. So later on when Dr Madan Vasishta came from America, he published the first dictionary. It was published by the American Federation of the Deaf and for the first time, something called Indian sign language was documented. So that time I was very happy to see that kind of book. But later on, we never had any classes in Indian sign language. So, I never thought that we needed to learn Indian sign language through proper classes. I just thought it was a natural language.

So later on, the National Institute of Hearing Handicapped initiated another project called Indian Sign System. So, I was invited to have a discussion with them. So, what way Indian Sign System use the American manual aspects to innovate the foreign Indian consulates and all that. So, I felt that America use single-handed hand moves, but here in Indian becomes two-handed. For example, in Tamil, we have a word for water as thanni. So there is no sign. Here Malayalam you say vellam. So, we have different ways of saying the same thing. So, I do not know whether Indian Sign System you have to fingerspell the water. For example in Tamil we have to say thanni, Malayalam we have to say vellam. So, when we fingerspell all that we will have a lot of confusion.

So at the first time, I said the Indian sign system does not work. So, a lot of funding was wasted on those kinds of projects. Then, later on, we had a few people from England that came to Chennai and we were celebrating the 50th anniversary of the Madras Association for the Deaf. So, we had published a souvenir for the 50th-anniversary celebration. So, there was some interpreters are available. So, when those people came from England, they wanted an interpreter because they were doing something Indian script monitor and interpret it with them. So, they probably wanted an interpreter. So we had selected a person and they asked if he had a certificate in interpreting, but he never had any certificate in interpreting. So, they asked you had published that interpreters are available, so I thought you have professional certified interpreters. So do you have classes or any other courses for interpreting there? So, I said there were not any. They said you should not mention that interpreters are available if you do not have any proper certification. So in British sign language, they have different levels to courses. They have 1, level 2, level 3 and so on.

So, once you complete all those levels you get certified. It is a completely professional way to do it. In India we do not have this, so he feels that how they specify that you have interpreters or something like that. So, they invited me over there to have a look at the classes, the interpreting classes. When I visited them, I learnt a lot of information that they were giving out like how to give the attention of deaf people and so on.

I learnt a lot of things and I came back and with the association, as I was working with the Madras Association of the Deaf, we started sign language classes. What I did was we typed and we had printed around 1000 letters. Nowadays, we have WhatsApp and messaging and so much easier to communicate, at that we did not have such things that we have now. So, we have to write letters and send it out. We send it across so many people, different NGOs, to government officials and all that. So letters we have posted and we got responses from only 10 people. So, with these 10 people, we had 3 months course and I started teaching whatever I learnt from England. And then the second batch I thought would be better. We sent letters to only 250 people, 250 letters were sent but we never got any responses.

So, at that point in time I was kind of very sad that I thought that people were not really interested in learning sign language. And then later on the Christoffel-Blindenmission CBM which is headquartered in Bangalore, is a German-based organization. So, it had started the project on developing Indian sign language. So, since I was involved in teaching and actually wanted somewhere posted I went again for a meeting.

And during the meeting, I met a lot of new people, new faces. So, I got introduced to all of them and CBM handed out about 80 lakhs for the project. I told them that no like wait a minute. We already have funds given previously for this kind of work, but nothing much had happened. For example, Madan Vasishta had come, after he published nothing much happened. Then we had the Indian sign system. A lot of fund was spent on that, nothing much happened and now CBM wants to spend so much of funds around 80 lakhs, so let us not do it. But they said they are aware that Dr Madan's book project did not get much success and then ISS also did not get much success, but they really wanted to do the project, the Indian sign language project to document different signs. So, they asked me to work on this.

I spent some time thinking about that. Later on, I agreed and the project was handled by the Ramakrishna Mission Vidyalaya on Coimbatore. So, we started with the real project and I was selected as the project head during the project and my son Amaresh was also selected and we had a team of another 3 people and we started making the dictionary. It was a very big learning experience for us and it was not an easy task.

So first of all, when we got the funding, so we visited a few places in Tamil Nadu for example Chennai, Coimbatore, Madurai, Tirunelveli in our expenses. What we did was we started taking still photographs of signers and we have made a list of Lexicon. The Lexicon was divided into different categories, for example, housing, family, animals, colours, flowers, and time. So, all these were divided into different categories, so we had around 260 words in the lexicon that we wanted to connect signs from.

So all these categories were further clubbed into different units. So, according to them, we had taken a lot of still photographs of the signers. But then, with instant photography, we would not

be able to see the movement of the sign. So, it was very difficult to analyze these things. Then we started taking videos of all signers. So, similarly, we had so many videos from different states, from Delhi, from Madhya Pradesh, Maharashtra.

We got all the data from different places and we had five computer sets and the first one signs from Tamil Nadu, the second one shows signs of Kerala, the third one from Maharashtra and so on and bracket also. So we had to analyze all the signs from these places, from the mythology of signs, we thought we had to categorize them and move them separately and it took a lot of time, around 3-4 hours we had to recognize and Amaresh had to make line drawings of the collage signs and then we had published dictionary.

Then we invited all associations for the deaf for validation. We got feedback from all those people. And then after the feedback, we had a second round. Again, we had a national conference, a second national conference. And again, there was validation done and we had the final version of it. After two years, we had published the dictionary. It was released on November 24 2000, and that was the last edition time.

But as I said, we have a list of 2500 words, but we were able to document signs only for around 1600 words. Second, we also had our dictionary which we had published related to ITI technical words. So, we visited some of the places where ITI courses were offered for deaf people. They have collected the signs. The third one was banking terminologies thus was related to the bank and financial sector.

So again, we have collected a lot of data and again we had published a dictionary, but it was pretty hard work, finally, we had a dictionary. So after we publish the dictionary, go to the next step. So the next logical step was to have classes and courses. So, what we decided was we will have three levels; level A, level B and level C which was presented on the rehabilitation council of India because they are the apex body who paid.

They actually are the body to approve all courses pertaining to disabilities. So around June-July 2001, we started the diploma course. So, the diploma in Indian Sign Language Interpreting, so it

was the yearly course. We had a couple of classes, then I had to leave Ramakrishna Mission Vidyalaya. Then I joined the National Institute of Hearing Handicapped and continued working as an ISL instructor.

It was very hard work, but I thank CPM for initiating this project and being successful now. Now since the dictionary has been published and distributed. So, our dictionary was in English. So right now, the same dictionary is available in English and in Tamil also. So, it is getting translated into Hindi, to Telugu, Malayalam, to Bengali. Soon then now translating the text in different languages, it will be available soon.

So that was the history of Indian sign language how found in India and later on. So that is how Indian sign language first grew in India and later on now we have the ISLRTC, the Indian Sign Language Research and Training Centre. We have online resources, dictionaries, and all that. I heard that they have around 6000 words. And at CIIL, the Central Institute of Indian Languages, they also have an enormous project where Amaresh was working.

So they had developed a purpose, Indian Sign Language and they are doing a lot of research and analysis on that. And now we also have another organization called DEF, the Deaf Enabled Foundation. They are also making a lot of videos and dictionaries and our community is also in the process of making resources in Indian sign language. So our Prime Minister Mr Modi, so NEP, The National Education Policy, for all these while there was no mention of sign language, but right now there is a mention of sign language in NEP. It is not only for deaf childrenbut even for hearing children, they can learn sign language for better communication. If they can learn sign language that will be easy for us to communicate with hearing people. So, this particular thing is very important that the National Education Policy also it is being mentioned right now.

Thank you. Thank you so much, Mr Gopalakrishnan. Nita, thank you very much. So, we did not have ISL for so many years, right now ISL is running nicely Mr Shafique, I am pretty happy. Yes, that is right. So, any language especially ISL which was being used for so many years. And I am also happy that IIT, such a huge, big institution, one of the top institutions in India is also

having a course in sign language. I am really happy, I thank Dr. Hemachandran for initiating this. Thank you very much.

Thank you, sir. So, we will have Muhammad Shafique now talk about the journey afterwards because he has worked with the Indian Sign Language Research and Training Center with the process of creating a dictionary about which Mr Gopalakrishnan just mentioned that they have close to about 9000 to 10,000 words that have been documented now. So, he will take us through the journey. Thank you, Nita.

Thank you to everyone and thank you to all IIT students. Welcome and this is Gopalakrishnan sir he had elaborated on the history of Indian sign language. So, so the deaf community is very small and we have not documented much about its history. So, about the history with what Gopalakrishnan sir had said in the 1980s when Dr Madan had come to India and there was another person Ulrike Zeshan who had come and done a lot of research in Indian sign language.

So Dr Ulrike Zeshan when she started seeing that there were no courses in India, so then she did a lot of research. She did research in India and Pakistan. She did an analysis with what are the sign language used in Pakistan and India once they had partitioned. So according to her analysis, 80-85% of the signs were similar and 25% of the signs were different. This is probably because of cultural influence.

So she had been here, Ulrike Zeshan, and she had been here in the year 2000. And then later on we had this level A, B, C course which was started by the RCI and changed to the National Institute. So, she was involved in that and there was another person Pasaji, but not much work was done. So after the dictionary published by Ramakrishna Mission and the course started, most people were offering the courses, only a few NGOs, very small NGOs were offering.

But later on, ISLRTC was set up and all the different areas are being looked into research. ISL interpreting, things like that. So, we also have courses for Indian sign language trainers, so the deaf people can become sign language trainers. So initially, we had three levels that are A, B and C but totally it was around 1000 hours and then you get a certificate.

So, people who completed the course did not have many skills because at that time the standard course was very less, they did not have much practice. So now, it is a two-year course and it has a lot of topics and how to interpret and how to translate and a lot of practice sessions. And for two years, they have to rise and sign and do reverse interpreting. And then they have very individual projects from class zero to fifth.

For example, in the textbooks, we have text and pictures. For deaf children reading the text is very difficult because their language is different. In spoken languages like Hindi and English, it is very difficult for deaf children to read and understand because they do not upgrade the language naturally. So, in early intervention centres, the textbooks are translated. They have a QR code on the textbook.

If you scan the code, then you get the video for that particular topic and all the different lessons, so each and every page has a QR code for different subjects like history and mathematics and stuff like that. So, the QR codes seemed to be useful, both parents and the child can learn sign language by translating the textbooks. So it is very easy for parents to learn and communicate with their children.

And the accessibility, there is lot of accessibility in modern times for deaf children. So, it was 6 months project, which was done and later on hopefully it will take longer-term. They have a group of 18. So previously, we just had very few people who are really experts, we had Dr Gopalakrishnan sir and Amaresh, but now we have around 6 people who have been very experts in Indian sign language.

And there are also interpreters working over there together with them. So, what they do is all the texts translated in the Indian sign language, so Monday to Friday the work is done. So videos are again you know like we have a studio there, writing in the screen. So around 3000 words were made initially and we have edited all that and then first we had set it out for getting feedback from different people.

So, we had to follow on, feedback and follow, few days we had analyzed all the feedback. We had some of the people who sent some of the signs were drawn and so we made a harder version of it and again then it was released. The thumb drive was released. A long time back we used to have CDs and all that but now it was copied on a thumb drive and distributed. So, we had another set of work done, another 3000 words in.

So we have 6000 words under different topics science and law and agriculture, horticulture and all of these. So, what we did was since we did not know the terms or the meaning of the terms, what we did was we added an expert from the field, the hearing person and we asked him if the meaning of the particular word was correct and all that kind of work was done.

And the person expert had to explain what the particular word meant and we may sign that and then we had to take videos and again we have a talk show to validate it. And again, we had 6000 words. And in the third set we had around 4000 and finally now have 10,000 signs which have been published. So, it is there in the site also. So long time back it was just 1000 words and now we have around 10,000.

So ISLRTC is already set it done. We did have some scheduled to enter the forms and now we have ISLRTC. And a lot of work has been done. I think 10,000 words is not enough, we still have to add a lot of new signs in the Lexicon. For example, if we have in the dictionary, we have Indian signs which are being invented, so we will have to see and the signs would be added to the dictionary definitely.

For example, there are some gestures some signs for which we do not have English words. So the aim of the dictionary is to form a narrative done in sign language. And also for the deaf people because of what happens is in classrooms the teacher really does not explain certain things. So, for the deaf children, they can actually look at this resource and look at videos and then understand the signs.

So, hopefully, in future, we will have to work that we have captioning and sign language in systems and all that. So to add even the Deaf Enabled Foundation that is an NGO they also have

a dictionary with a lot of words and explanations. And then Signex also created a dictionary, a mobile app dictionary. So, there you can learn sign language and the meanings of each word. So not much work was done, initial work was done by ISLRTC of 10,000 words.

Yeah and now I will pass it on to Rahul that all the part of work done by Ulrike. Okay, so this is Rahul here. So Ulrike also had done a lot of work in Indian sign language. So even in Ulrike, we have done some work on Indian sign language. We had created some basic words and we had created signs of some basic words and had them online, so for basic communication for the right people to learn basic communication with deaf people. So, it is ongoing work right now.

Gopalakrishnan sir, so previously at APD, Amaresh had produced a dictionary for horticultural terms through Signex. And we also had done a lot of work on that and we had made a dictionary. So, in the state of Karnataka in the villages the knowledge dictionary work still better, they were able to use this dictionary for agriculture and farming purposes. Earlier we had very few interpreters, we had around about 30, but now we have a lot of interpreters, 450 skilled interpreters even though we have more than that.

But in India, we need around 50,000 sign language interpreters. Nowadays we have online resources, online meetings and a lot of people have started sign language resources like in India ISLRTC, we have different NGOs and Let's Sign and all these companies have started, so I am very happy for all of them. If the hearing people who can make use some of the organization as our businesses. So some of the organizations, some of the businesses are handled or managed by hearing people, so they should not decide what kind of resources should be available. So we need to have deaf people working on these kinds of projects so that we know what kind of resources should be available. So, I guess both hearing people and deaf people need to work together because they are working in two different types of languages, spoken languages and sign languages.

So if you work together, then the work would be much more useful for people, otherwise, it is not going to be that useful. There was a person who wanted to get a sign resource, but I told him

that it is better to have a deaf person do it. But he did not listen to me and he actually made the resource but then any people did not like it at all.

Adult children and deaf people prefer videos made by these persons because they can connect with the sign now, they can connect with the sign language used. So organizations like ISH and all that they are creating a lot of videos. So what happens is, if you have a deaf person just walking around, hearing person assisting him. For example, this person was asking me the sign for the word true. I said we do not have a sign for word true, it is not in the sign language such as being used. So certain things like that if they cannot understand, so whatever project they to do is not going to be successful. Though you think I am the first of all is deaf people, deaf children cannot go for higher education. The max they were able to go forward is 8th standard or 10th standard after that may get very low-level jobs.

But now we are on the mainstream and the children smart enough, gain much knowledge or education in the mainstreaming. So, my vision is deaf children can get good education so they can develop very fast. Yeah, thank you Shafique. Thank you all of you.