

Literary and Cultural Disability Studies: An Exploration
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Lecture – 33
ISL Workshop Day 4 – Part 1
Talk by Prof. Tanmoy Bhattacharya on Sign Language and Linguistics

Prof Hemachandran Karah: Welcome all. This is the fourth day of our course/workshop. Today we have with us Professor Tanmoy Bhattacharya from Delhi University. He is a professor of linguistics and I met Mr. Tanmoy in 2012 in one of those sessions where he brought some of us graduate students, teachers and many more together to do some readings on disability studies, bring critical tasks and then read line by line, sometimes sentence by sentence. We used to even talk about a sentence for an hour. I know him as a great mentor. Apart from that, he has innumerable publications. He recently started the Indian Journal of Critical Disability Studies, which is a very landmark event in the history of the field. And his academic engagements are cross disciplinary, interdisciplinary, and multidisciplinary.

So that means he has very important insights to share between an enduring tie between linguistics and disability Studies. I know next to nothing about linguistics except that I know it is art and science of language, studying language in all its variegated forms. So to know more, I am eager as much as you are to know about the tie between the two fields and he will make it as easy as possible for all of us for this journey today.

And of course, Nita is here. I requested her to stay back and off her own accord she also stayed back and help us all with this journey. Thanks so much Nita and professor Tanmoy. Amaresh is here for sign language. Thank you. Mr. Tanmoy I just say that the mike is yours.

Prof Tanmoy Bhattacharya: Thank you Hem, that was a most appropriate introduction. The first thing to wonder about is why linguistics at all and the obvious connection is of course sign language. And that is also a personal reason for me to branch out into disability studies many years ago, apart from interest in anything theoretical. I also got interested into sign language and

Indian sign language, and started guiding research on Indian sign language; initially we used the term IPSL, which was the acronym used by professor Ulrike Zeshan. She works at University of Central Lancashire. Earlier she was in various other countries, but she has been working on Indian sign language for a very long time. And she is the first person who have written the first grammar book on Indian sign language. So, you could say this was the first sort of formal study on the language. Before that there have been studies in India, most notably by Professor Madan Vasishta who has also not lived in India. He has operated from Washington and was associated with the famous Deaf University, Gallaudet University and he has written personal accounts as well as descriptive studies on sign language.

But Ulrike's book was the first one which established a modern formal account of the language and she also came with linguistics training. Ulrike in her first book used the phrase 'Indo-Pakistani Sign Language' which was abbreviated as IPSL. So the first student who worked with me (whose work I will refer to today), Hidam Brojen Singh - Hidam is his last name but that is how it is written in Manipuri - and he did an M. Phil, finished in 2011 and he did a Ph. D. which he finished very fast by 2014. So, in his M. Phil. he used the term IPSL, but later on we saw the usage is more dominantly ISL, and we switched to ISL. The reason that Ulrike had given the phrase Indo-Pakistani sign language was because she studied the sign language or she did field work. Ulrike is not a deaf person, but one of the most fluent signers in many languages like BSL, ISL, ASL that I know of. So she did field work in Pakistan and also in India and her idea in that book is that they are the same language; they are the same language, so we should call it IPSL. But that is not important, we can call it IPSL or ISL. But the point observed by Ulrike at that time is a very linguistic point.

So, for example my mother tongue is Bangla or Bengali. That does not mean I can only study that language. If you go through my linguistic work, you will see I have worked on various languages. For the last 10 years, I have been working on some languages of Bihar, some languages of Central India which are called Munda languages and some languages of Mizoram and also in Nepal. So, none of these are like the languages that I am most comfortable with like Urdu or Bangla or English, these belong to different language families. So Munda is one of the earliest language families and one of the earliest incursions into India. Genetic studies have

shown that and they are mostly concentrated in East and Central India, an isolated group somewhere just to the west near the beginning of Maharashtra.

So that is a speech community, which is different from the dominant two groups in India. One is Indo-Aryan group under which you have Hindi, Gujarati, Marathi, Punjabi, Kashmiri, Bengali, Assamese and many other languages. Then there is this other dominant group which is very familiar to many of you I guess: the Dravidian language group, not so many languages, but at least four major languages, and some languages which are actually Dravidian are not located in the south of India. So, we will find some Dravidian language in Bihar, in Jharkhand. There is even is one Dravidian language in Afghanistan, which is a very interesting story by itself on which I have worked on the migration of people and language. But, there are other two major groups. There are actually 6 groups in total in India language families, two major groups; Indo-Aryan and Dravidian and then you have the Munda languages.

Munda languages are mostly dominated in Central India. But also, there is one language in the North-east. It is like the same kind of surprise that you find a Dravidian language in Afghanistan; there is a Munda type language in the northeast. That is the Khasi language in Meghalaya. Khasi is actually not a language belonging to the Tibeto-Burman languages, which is the fourth group that I am going to talk about.

These Tibeto-Burman languages are most of the languages of Northeast India (except Khasi and also Assamese, which is not a Tibeto-Burman language). So, languages in Arunachal Pradesh, many languages, in fact many languages in Assam, many languages in Nagaland (Nagaland has like lots of languages, there is nothing called Naga language. Some of you might know that Naga people communicate with each other using something called Nagamese which is a mixed language. It mixes little bit of Hindi, Assamese, and Bangla; Nagamese. So many of them actually know Nagamese that is a kind of lingua franca in Nagaland because Nagaland consists of many tribes with different languages, speech communities, different speech communities). Then Manipur has many languages, of course Manipuri which is called Meiteilon, but also has many Naga languages. And then Mizoram, which are not really Naga languages, but traditionally called Kuki languages. So, some of these languages flow over into Myanmar from Mizoram. So,

these dominant groups, and then there are languages in Nepal. Of course everybody knows Nepali but that is not a Tibeto-Burman language; that is an Indo-Aryan language. But also, you have maximum number of languages in Nepal, about 23 languages are Tibeto-Burman languages. There is a separate term used for those Kiranti languages. And then you have lots and lots of Tibeto-Burman languages in the South West of China. So there is in fact a corridor running from the north to the south, from Tibet all the way down going into Southeast Asia. There are quite a few languages in that corridor, which is sort of bordering the northeast of India, which are Tibeto-Burman languages. There are about 40 languages. But sort of the picture that emerges from China is a homogeneous country with homogeneous or monolingual speakers like Mandarin, but that is not true. Of course, you have in the north of China languages which sort of border languages in the south of Russia and you have Taiwanese which is also not Mandarin.

So, China is very diverse for the diversity image of China we never get to hear about, but you can read a series of articles, in fact if you go to my university website or ResearchGate link you will find about six papers looking at migration and language, and evolution and language that is another area which is a little outside my specialization. It is not really so much part of linguistics, but something which I work on.

Now, sign language therefore fits into this very well. I might be working on Tamil and I find Tamil to be similar to Hindi. So, I get probably stones thrown at me if I go and say it somewhere, but then that is what a linguist's job is. Many years ago, when I was in London, I was doing a Phd., I was invited by a Bangladeshi cultural organization group consisting of people from the area called Sylhet in Bangladesh. And Sylheti, you might know (now I think it is kind of established), they have been demanding sort of a different language group and there are different writing systems which they are trying to rediscover and redevelop, etc. So, I was invited to talk and I agreed. A few days before the talk, somebody called up and said that, 'well, good that you are talking I hope you will say that Sylheti is different from Bangla in your talk'. I said. 'there is no such guarantee, I am a linguist. No, I am not going to look at the political issues, I am going to look at first of all language scientifically'.

So, I am spending time on this, although it is not really so much part of my presentation. I have a presentation with about 25 slides or so, even though I do not have to finish it. But it is an

important part of that presentation that we look at languages using a methodology which is scientific.

So, when Ulrike says it is IPSL and I say it is ISL or anybody ASL and it is the same thing and Ulrike makes the linguistic point that sign language in Pakistan or India are the same language. And this is what I think you might have discussed in another talk in this series since the last 2-3 days have been about the varieties within India. So, you have a Mumbai variety, you have Bangalore variety, you have a Delhi variety, you have a Kolkata variety; at least these are the major varieties. And people think of these as different kinds of sign languages. This is not true. Linguistic perspective on these varieties would say that there is a sign language, call it ISL, no problem with that. But the variety, the differences- that you notice are at a level which is not how you define a language at the level of vocabulary.

And that is why from that perspective Tamil and Hindi are not very different. And in fact, we would say all languages are so, and that is the sort of most democratic and I think worldview-changing statement that linguists have made half a century ago, by none other than Noam Chomsky who is still alive, I think he is 93 or something. And he has sort of single handedly defined or worked on the theories of what has come to be known as modern linguistics. His first book when he was 24-year-old was called Syntactic Structures in 1957. He has published this notion and later on because that is a technical book, but later on the field sort of caught up with this. And this whole idea of language where language is located in the human body and how it comes to be our language. So, these things became established in this Chomskian tradition. And this is called the generative grammar tradition. And the main everlasting sort of principle that came out of that tradition is that there is something called UG, Universal Grammar.

This Grammar is not grammar in the school books like all of you have studied, all of us have studied, not even the linguist describing the grammar of a not-so well studied language let us say Toda or some language, Tulu and they write a grammar book, even not that. Grammar is something which is in the mind; that is what children are born with some form of it, a primitive form of it. And the moment that operators interact with actual language experience, language as

we know happens and that language could be speech, but that language also could be using signs. But the form of that grammar is claimed to be universal. So whether I am looking at let us say a language like Cherokee (Cherokee is an Algonquian language) or language like Chichewa (a Bantu language), or whether I am looking at a Kiranti language let us say Bantawa (spoken in Sikkim and Kathmandu, Nepal), we are still looking for the same pattern. But of course, we find differences on the surface. So, when we say the Mumbai variety of ISL is different from the Kolkata variety or Delhi variety or Bangalore variety, we are basically looking at that level - the surface level.

In spoken language, we look at speech. We look at the words which are spoken and obviously different. If I hear Tamil being spoken around me, I will understand a bit of it but not everything because I know a bit of Telugu since I have lived in Hyderabad. So, I will probably be able to connect something and also because I am a linguist, so I will be able to figure it out a little bit. But if I listen to let us say Chichewa, I would not understand anything.

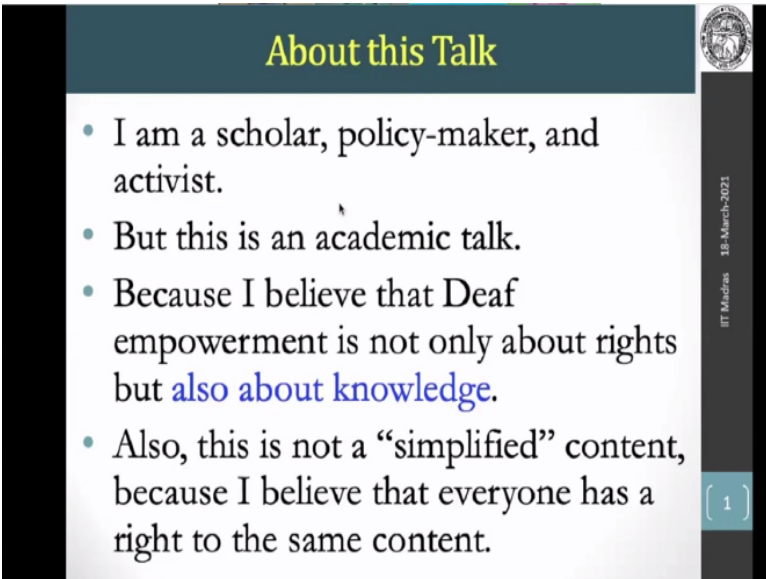
If I or any of you who are not familiar with Tibeto-Burman languages listen to Manipuri you will not understand anything. So, you will not be able to really see the connection. So, on surface languages seem to be quite different. And this is the everlasting and most democratic principle that generative grammarians came up with, that is, all of us are born with the equal ability to acquire a language depending on where we are landing. If I am landing in Reykjavik, I will end up speaking Icelandic. If I land up in Chennai, I end up speaking Tamil most probably. Now, this depends on my home environment also. So that is the actual language and data experience, what your parents or your caretaker are speaking or people in the hospital speaking, the nurses; all those are inputs to this box that you are born with.

And the box then starts working with its innate mechanisms and the things that come out sounds different, but there are great similarities across different groups of languages. These four groups are languages that I talked about which we have in India; 4 major groups, there is also Andamanese and there is Nicobaric, I do not know. Andamanese, Nicobarese are actually part of this Munda group.

And there is also something called Tai-Kadai languages which are majorly found in China, but there are some languages in Arunachal Pradesh also. Some districts have upper Assam where there are speakers of those languages. So there are 6 groups, but 4 major groups; Indo-Aryan, Dravidian, Munda (which also has a fancy name Austro-Asiatic), and then Tibeto-Burman. Not Tibetan or Burman, but Tibeto-Burman. Four major groups, but then out of those we know that now here the ‘major’ ones are (due to various other reasons) are Indo-Aryan and Dravidian. So, at this point, I think I have made only one point, which I took advantage of Ulrika’s idea and the naming of sign language and then the varieties of sign language that exists within India.

But the idea that I explored is that these languages are all similar at one point, underlyingly they are similar, but on the surface they may look different and this is the learning from linguistics. And in fact, this learning is something which is extremely useful not only to establish sign language as a language like any other language, but as I will show in the presentation also to in fact enrich how linguistics is studied.

So that is my main point, that is what I have been talking about for some years when I talk about sign language. So, sign language was the entry point for me into disability studies which I have branched out in a major way as Hem was mentioning during the introduction. Let me start the presentation. I do not mind not finishing the presentation because these are never complete. So, I will just share the presentation now. **(Refer Slide Time: 26:29)**



About this Talk

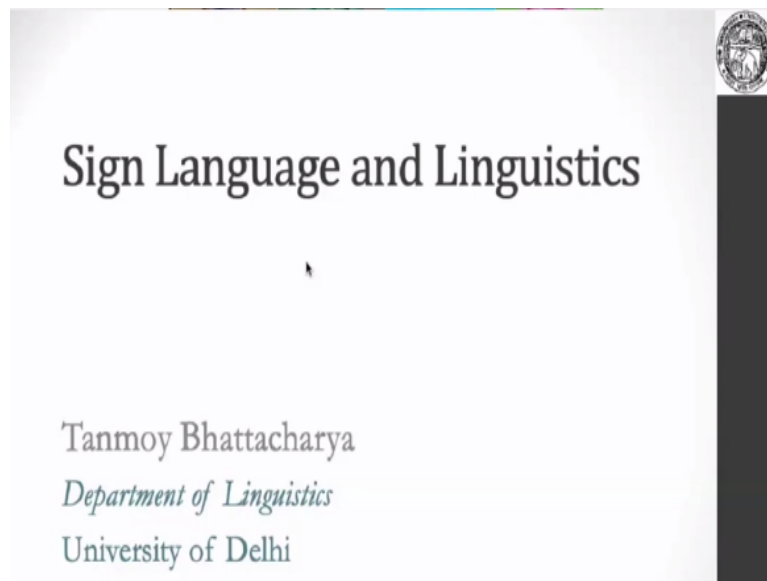
- I am a scholar, policy-maker, and activist.
- But this is an academic talk.
- Because I believe that Deaf empowerment is not only about rights but **also about knowledge**.
- Also, this is not a “simplified” content, because I believe that everyone has a right to the same content.

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So, let me begin with some basic things which Hem already talked about: that I am a scholar, policy-maker and activist. But this is an academic talk because I believe that Deaf empowerment is not only about rights, but also about knowledge; that is very important. So, I hope there are people who are able to see the signs and people who are able to read the presentation. Also, this goes against what Hem said in the introduction. This is not a simplified content because of my personal belief that everybody has the right to the same content. We often do that in school when we advise school teachers to simplify things, of course you have to simplify, but you have to also present very complicated concepts in simple form. So, it should not be simplified, but a simple presentation of complex ideas.

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So, this is the title of the talk if you require a title: Sign Language and Linguistics. And I teach linguistics in the Department of Linguistics, University of Delhi.

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Why study SL and Linguistics?

- Early attempts: emphasizing difference between SLs and spoken languages (word order (topic-comment), classifiers, non-manual marking, use of space)
- Modality difference: space vs. sound (hands, face, and eyes vs. ear & vocal apparatus)
- But rate of production and processing of whole propositions are equal (simultaneity) + similar rate of **acquisition** (babbling)



So, first question: why study sign language and linguistics? I have already covered this, but a little bit of history. Early attempts in the 70s actually, the scholars tried to emphasize; for example Friedman 1975 is a famous example, emphasized the difference between sign language and spoken language. So for example, they pointed out that word order is very important in spoken language, hearing language. And it is about positioning of certain key elements within a sentence, whereas sign language progresses via these two notions called topic and comment. There is a topic and the following statement is about the topic that is comment. So it is more kind of functional; that is what they tried to show. Then they said that there is something called classifiers which is property of all sign languages.

And I will refer to this, I would not exactly study this. And then there is something called non-manual marking which you must have already been introduced to. Non-manual marking, that is the kind of expressions; facial expressions, eyebrows raising, etc., are non-manual markings which are very important as truly a part of language, more a part of language than these things are in spoken language. So many of you cannot see me but you are able to understand because I am speaking and of course even if I do not speak if I write, you read that, you will be able to understand what I am saying. In the so-called spoken language, the things which are outside speech, let us say your facial expressions, raising of eyebrows, etc. are not that important in spoken language, but here in Sign Language they are very crucial.

And then most importantly, the use of space. So these four things; word order, classifiers, non-manual marking and use of space mark sign languages apart from spoken languages and therefore the early scholars insisted that they were looking at ASL and English for example, as ASL (American Sign Language) is very different from English. So if you study the literature, you will find this and that is basically because the modalities are different.

One is that sign language uses space as a modality whereas spoken language uses sound as a modality. And related things therefore in sign language are hands, face, eyes whereas in spoken language ear and vocal apparatus, so vocal cords and ears tube mechanism, etc., lungs. But then it was very soon found out that the rate of production and processing of whole propositions is like a whole sentence; in spoken language we say sentence, whole proposition are equal.

So maybe individual words or individual signs representing a word will take longer, but by the time you finish your sentence that is a proposition they are equal whether you speak it or you sign it and the reason for that is 'simultaneity', because sign language majorly uses one element which spoken language does not use majorly.

In fact, spoken language cannot use also is that simultaneously you can do more than one thing as you have most probably been introduced to or already been demonstrated to; you have seen that you can at the same time sign something with your hand. So, sign something with your hand and then also raise your eyebrow at the same time; it is important.

So, the sign that I did putting this right hand's four fingers joint together or on a kind of a plate of the left hand in the palm that has a meaning or if I just put middle finger of the right hand on the palm of the left hand and then waive the right hand that means 'where?' So first sign is place and where, but then at the same time I must also raise my eyebrows, otherwise this becomes a very uninformed, sort of like when I try to sign it will be like that uninformed or kind of second language; like we say second language speakers. Somebody speaks let us say another language in the dominant culture, English let us say and you have to speak English but your English is not that good according to the standards established by the dominant language speakers; it will be

odd because English is your second language. So if I try signing and miss out on this raising eyebrow, then my question which starts with 'where' is not very meaningful for a deaf person.

So, the simultaneity of raising the eyebrow and signing and many other things like position of my hands, position of my torso, upper part of the body, orientation of that and then movement of my sign from one place - let us say here to here -, this is a sign I am doing with clenched fist on my right hand on the left hand palm and I am changing that from my own chest towards you. So, this movement or direction is very important in sign language and doing at the same time and this in fact marks out these languages to be quite different. But then as I have shown through my work, you can account for these things linguistically. So basically, the rate of production and processing is same in both types of languages - sign as well as spoken.

Plus, a very important evidence is language acquisition. Spoken language children go through the stage of babbling. Babbling is a technical term in psycholinguistics literature. Similarly, deaf children who are growing up in a deaf household (that is, parents are also sign language users) they will be using manual babbling, equivalent of babbling but not through speech, but through hands or signs - this is manual bubbling. So, babbling is a very clear marked stage in language development.

And similar rate of acquisition. Child acquires first word stage or two words stage, etc. and feels like they are almost adult speakers (human children are all adult speakers, whether use sign language or signer or speaker by two and a half or three). So, if there is nothing genetically going on, if there is no disorder, then this complex thing called object is acquired that fast, and there is no difference in rate of acquisition of sign language and spoken language.

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Localisation or Lateralisation

- Spoken language, especially Syntax, is located in the left hemisphere
- SL too is localized in the left hemisphere though other spatial relations are right located.
- Deaf stroke victims: left vs. right hemisphere lesions had different effects
- Right: language *as such* was not affected but although other non-linguistics spatial relations are affected.

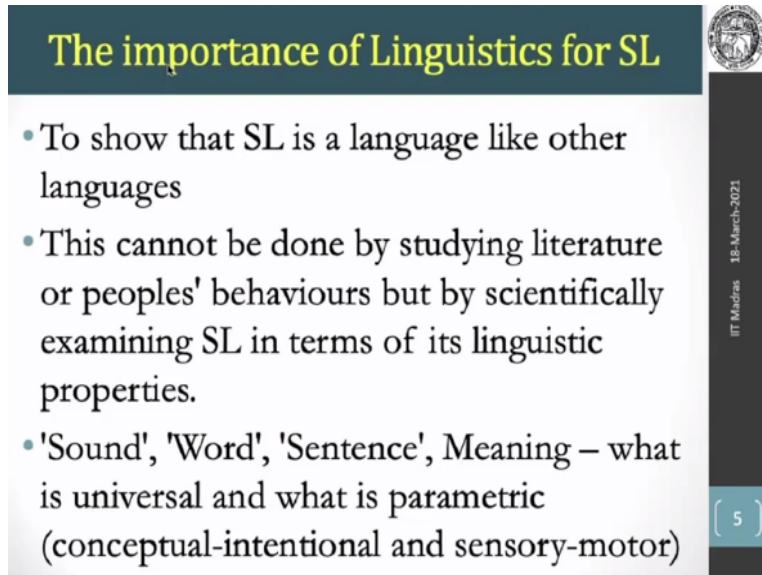


Now, another very important area where there have been some studies in collaboration with biologist and scientist is the whole notion of localization or what is called lateralization, that is very broadly - and this is a stereotype which must not be propagated, but still you have this idea because very popular authors now use this without knowing the whole thing that you have this broad division of left hemisphere and right hemisphere of your brain. And certain things are associated with left. For example language, spoken language, especially Syntax (study of sentence structure), this is associated with your left hemisphere. Now, sign language too has been shown to be localized in the left hemisphere. Though, sign language majorly uses space and vision rather than sound. Sound is what is the main part of spoken language, but for sign language it is the sign, so vision and space.

And interestingly, other spatial relations like how big this room is or how far that temple is; all these kinds of spatial decisions that are really part of the right hemisphere. But it has been found that sign language using space relations is located in the left hemisphere. How do we know this? Well, you have to look at language. Now, let us look at deaf stroke victims. So you might have lesions (damage or injury) as a result of stroke; lesions in either the left or the right hemisphere. Now, the effects that you have on sign language are different. So if your left hemisphere is injured or damaged or the lesion is on the left hemisphere of your brain due to a stroke and you are deaf and as the sign language user, you will find that your language is impacted/affected.

Whereas if you are a deaf stroke victim, the sign language user and your right hemisphere has a damage, then your language as such is not affected, but other nonlinguistic spatial relations will be affected. So that was the fourth bullet point on this slide. Let's move on to the next one.

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The importance of Linguistics for SL

- To show that SL is a language like other languages
- This cannot be done by studying literature or peoples' behaviours but by scientifically examining SL in terms of its linguistic properties.
- 'Sound', 'Word', 'Sentence', Meaning – what is universal and what is parametric (conceptual-intentional and sensory-motor)

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The importance of linguistics for sign language. I already covered this part of it. First, to show that sign language is a language like any other language. Second, this cannot be done just by studying literature or people's behaviour, but by scientifically examining sign language in terms of its linguistic properties. Third, in linguistics, we study these kinds of things, different levels. Like sound is one level, word is one level, sentence is one level, meaning is another level. But the important part which I covered in my introduction is what is universal and what is parametric. And the most important part is interfaces. So, what the linguist have discovered, I think the neurolinguist will do 50 years 100 years later; but I think neurolinguistic studies have made or neuroscience as such has made tremendous progress.

But if you look at the progress in other sciences, the steps are really baby steps, small progress because of the difficulty of conducting experiments and studying brain, but they have made a lot of progress. But with respect to language, the progress has not been that much whereas linguists have already theoretically looked through this spectrum and kind of looked at the anatomy that there part of the brain which is responsible for language, but that is not the only thing that you should be concerned with; you should be concerned with the contiguous areas of the brain

anatomy. So those are called interfaces. And most common interfaces that all people who are studied or not studied must have heard is sound, interface with sound and interface with meaning. Now reflect for a moment that these are actually not necessarily linguistic properties. All animals make sound. And all animals have some kind of broad view of meaning. Like even if you have to gather food or hunt for food and you have to save food for your people, all animals do all those; all those scheming, those organizing ability and that there is some kind of meaning. So these are independent of language, but then language happened. How it happened is another story about evolution.

Language happened in that part of the brain where language is localized and it got connected with sound and meaning. So, sound and meaning got connected and that is how language happened. But these two interfaces are very important. And these two interfaces are modern versions of the terms; for meaning we say conceptual-intentional (relating to concepts forming, etc.), and for sound we say sensory-motor, which is a much better term rather than sound, because for sign language, we have signs, we do not have sound, so this is more neutral terminology. These interfaces are important and these levels like sound which is like phonetics and word, study of word, its structure, its composition that is morphology. And then sentence, study of the structure of a sentence that is syntax and then meaning - that is the study of the semantics. These are the major core areas of linguistics and we study any property through these things.

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The importance of SL for Linguistics



- I will show that many central topics in Linguistics lose significance once we start questioning their relevance for Sign Linguistics (Standardisation, Variation, Tense, Agreement, Case, etc.)
- Also, many issues that arise by studying SL provide a newer dimension to studying languages in general (variation, vowel length etc.)

Next, the importance of sign language for linguistics. This is my work that I have written about earlier. I will show that many central topics in linguistics lose significance once we start questioning their relevance for sign linguistics. For example, one thing I mentioned is phonetics; phonetics is really looking at vowel sounds, consonant sounds, syllables, and it is a very scientific field.

In fact it has a connection with our most dominant idea of ‘what is sciences’, like you can do measurement, etc. So, a lot of phoneticians work with physicists and computer scientists. So, all these mobile technologies that you see are actually collaborative works between computer scientist and linguists; mobile technology of speech to text, text to speech, all this technology is very instrumental. You actually can measure things and predict things and that is very useful. But then for sign language that whole speech to text and all these things are not relevant. So whole study of phonetics is actually irrelevant for sign language. Phonology is a different thing; I would not go into it because phonology has to do with grammar of combinations of sounds.

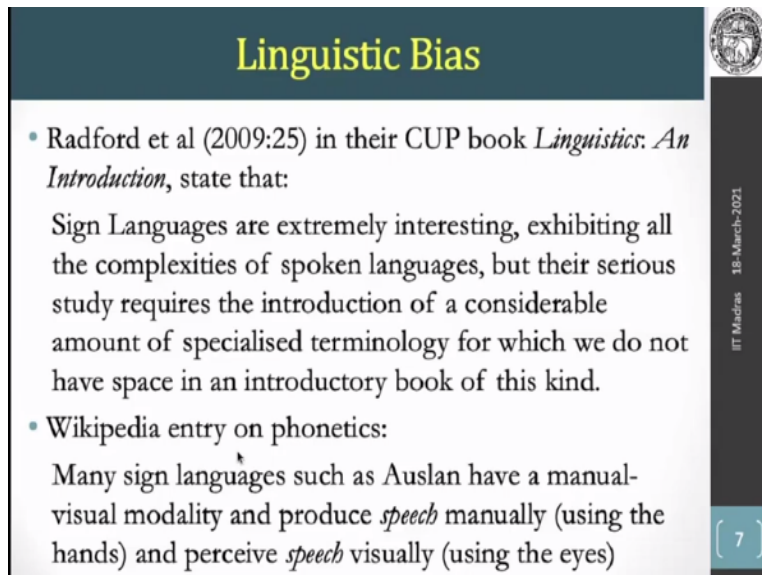
Then there are things like language variation. Now, I will refer to this later, so I would not go on to it. Then we have major things like tense in grammar. When you study grammar, we have tense; past tense, present tense, future tense. How that is to be understood in sign language is quite different and that lends a certain kind of light on to our linguistic analysis of tense.

Then there is something called agreement, you have it in Tamil, you have it in Hindi. Of course, you have this agreement with gender, agreement with number and person. In English it is very poor; English only has a number-person agreement. So, the subject of a sentence agrees with the verb and the verb agrees with the subject of the sentence. And these other languages I said I have been studying for the last ten years or so, different groups of languages have much more complicated agreement systems than not only English, but also Hindi or Tamil languages as such. So agreement is not very important at all for sign language. Then something called case; the Sanskrit term for this is *karakas* which is probably also used in Tamil.

Case, every nouns must have a case. If that noun you know if it is let us say the dog chase the cat. The dog will have certain kind of case morphology on it whereas if you see the man chase the dog, then the dog will have another kind of morphology on it and those are very much well studied aspects of linguistics, but not important for sign language.

Also, many issues that arise by studying sign language provide a newer dimension to studying of languages in general. For example, variation. When we look at language variation through sign language, we have a different way of looking at variation altogether.

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Linguistic Bias

- Radford et al (2009:25) in their CUP book *Linguistics: An Introduction*, state that:
Sign Languages are extremely interesting, exhibiting all the complexities of spoken languages, but their serious study requires the introduction of a considerable amount of specialised terminology for which we do not have space in an introductory book of this kind.
- Wikipedia entry on phonetics:
Many sign languages such as Auslan have a manual-visual modality and produce *speech* manually (using the hands) and perceive *speech* visually (using the eyes)

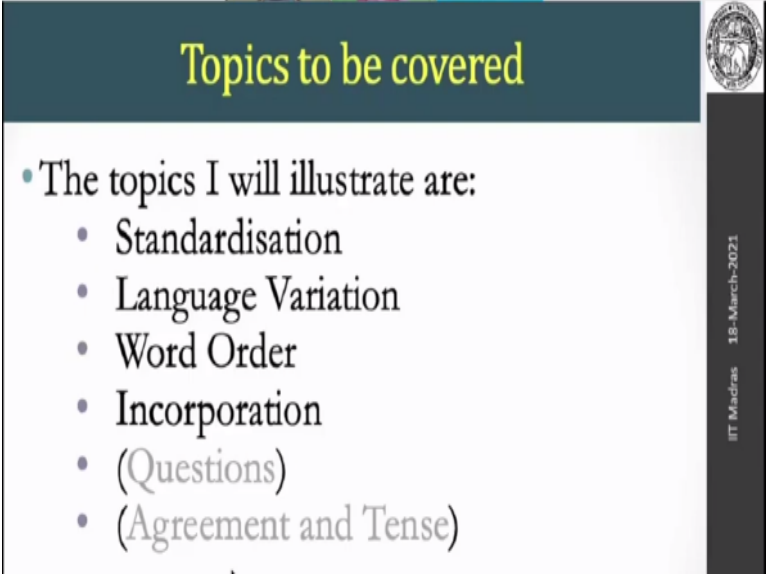
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This I will go through quickly, but usually there is a linguistic bias that we should guard against when people are studying sign language. So for example, this well-known book *Linguistics: An*

Introduction by Robert Radford in Cambridge University Press 2009 and I quote from there. “Sign languages are extremely interesting, exhibiting all the complexities of spoken languages. But their serious study requires the introduction of a considerable amount of specialized terminology for which we do not have space in an introductory book of this kind”. Now, this assumes that sign language must use different terms, different kinds of principles or methodology. Not so at all! If it is part of universal grammar, it should have the same methodology. Then even a Wikipedia entry on phonetics, I quote again, “many sign languages such as Auslan (Australian sign language) have a manual-visual modality and produce speech manually”. Note the term ‘speech’, using the hands and perceive speech, again *speech* is italicized, perceive speech visually using the eyes. I mean you get the meaning, but look at the terminology which is being used, which is speech and that is the kind of bias that should be avoided.

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Topics to be covered

- The topics I will illustrate are:
 - Standardisation
 - Language Variation
 - Word Order
 - Incorporation
 - (Questions)
 - (Agreement and Tense)

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These are topics depending on how much time I have, I will cover. I already mentioned standardisation. I will cover that a little bit. And then language variation. So these are easy topics and I have already introduced them in some ways. There are two more specifically grammar related topics: word order and incorporation.

I chose only two, and there are many which we cannot discuss due to paucity of time.

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Standardisation: Existing Views

- Haugen 1972: “it is a significant and probably crucial requirement for a standard language that it be **written**”
- Spoken standard norms are established on the basis of the **written** model (Scaglione 1984).
- Contact between speech and written language would eventually lead to the emergence “new [**spoken**] norms ... that are an amalgamation of **speech and writing**”



So let me straightaway go to standardisation and the existing views on standardization is very important to figure out because I wrote a recent paper which is yet to be published. In fact, when It is a long paper and there I start the paper by quoting a popular view on standardization by a person whose name I would not take. It was published in August last year in the very popular web portal journal The Wire and she says standardisation will remove flaws in ISL; these flaws will lead to problems if ISL is used in higher education and other advanced needs without standardization, she said. Of course very quickly there was a kind of online protest to some extent and the journal realized it and within two days they changed it. But unfortunately, I had already seen it and had taken screenshots of it. So, this is a version which does not appear on The Wire right now, but they changed it within 2-3 days. Such a statement not only betrays lack of knowledge of ISL as such and deaf movement in general, but also of the linguistic concept of language standardisation.

And standardisation has had a very vibrant sort of discussion within linguistics in from early 60s onwards and many people have looked at it, but I will refer to another quotation. This is from Rama Kant Agnihotri, who was the chairperson or the founding member of the Equal Opportunity Cell of Delhi University; he is also very well-known social linguist. I do not work in social linguistics, I work in Syntax, but Rama works in social linguistics and I organize the kind of little workshop in equal opportunity cell in University of Delhi in 2014 and he said something on the lines of, ‘we do need to understand why people so desperately need the concept of a

language, in fact a pure standard language. Those in power needed for staying in power or getting more power; so votes, land, property, money, etc’.

So anyway, thankfully, saner voices emerged very soon after this Wire article within the deaf community and no other than Sibaji Panda, who is a very well-known deaf activist and ISL trainer for many years, he wrote an article and it appeared in the web portal Newz Hook, and I quote him: “the standardization process is complex and requires serious involvement of users and continuous maintenance. However, the deaf community does not have the motivation to use sign language artificially imposed on them. Doing this will complicate matters further and divert our attention to some issues, which never was our problem in the first place. For instance, there may be a political battle between regional deaf groups over inclusion, exclusion of their signs from standard variety”.

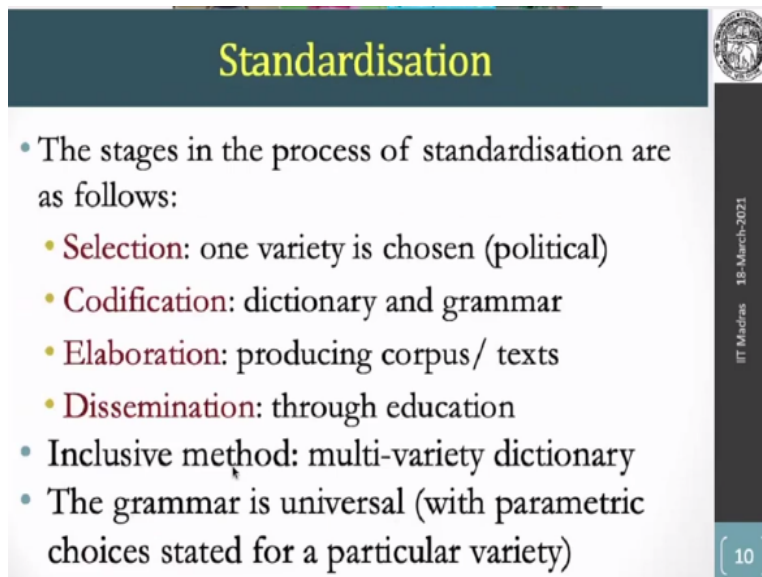
So, this quotation clearly established the parallel with the existing body of knowledge on language standardization and ignoring such established body of knowledge like we have done in linguistics would be a risk not worth taking. And because these kind of tenets of disability studies, the main tenet of disability studies, the rallying cry ‘nothing about us without us’ later on became the rallying cry for gender based politics and identity based movements.

So, if deaf people themselves do not have any problem with diversity of sign language, they have been moving freely and progressing and facilitating their career, getting jobs, studying without any problem with sign language, so if they do not have problem and they live with the diversity of sign language varieties, then what is the issue? So, there are certain technical things I would not go through.

But I will just give you a gist of certain biases in linguistics that popped up. So, this is a quotation from Haugen 1972, a very famous linguist who looked at standardisation and has written books on it; “It is a significant and probably crucial requirement for standard language that it be **written**”. I have highlighted the word written here. So, you can see sign language is nowhere in the consideration.

Then Scaglione in 1984, another collected essays volume; “spoken standard norms are established on the basis of **written** model”, “contact between speech and written language would eventually lead to the emergence of new spoken forms that are amalgamation of **speech and writing**.” So, you can see it is heavily biased in favor of spoken languages which can be written, (writing is not very important in the sign writing, it is kind of a useless activity, but people engage with that.)

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The slide is titled "Standardisation" in yellow text on a dark blue background. Below the title, there is a list of stages in the process of standardisation. The stages are: Selection (one variety is chosen (political)), Codification (dictionary and grammar), Elaboration (producing corpus/ texts), Dissemination (through education), and Inclusive method (multi-variety dictionary). A final bullet point states: "The grammar is universal (with parametric choices stated for a particular variety)". On the right side of the slide, there is a vertical bar with the text "IIT Madras 18-March-2021" and a small circular logo at the top. At the bottom right of the slide, there is a small box containing the number "10".

- The stages in the process of standardisation are as follows:
 - **Selection**: one variety is chosen (political)
 - **Codification**: dictionary and grammar
 - **Elaboration**: producing corpus/ texts
 - **Dissemination**: through education
- **Inclusive method**: multi-variety dictionary
- The grammar is universal (with parametric choices stated for a particular variety)

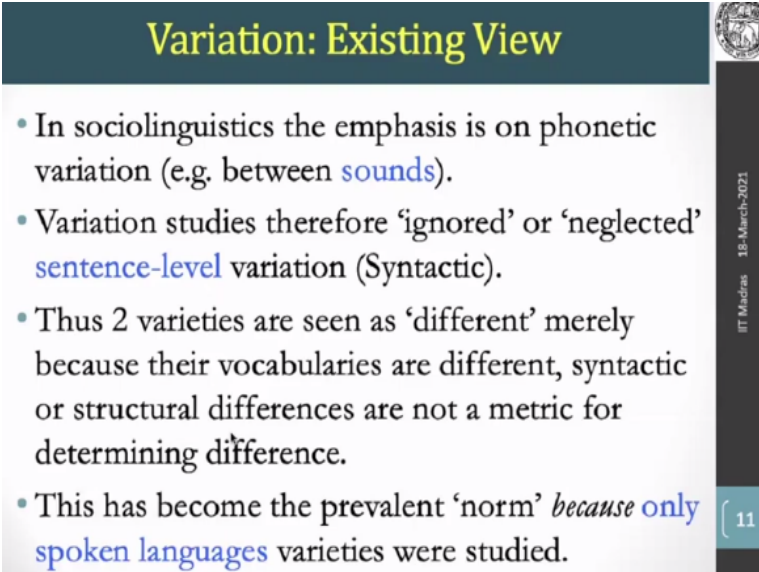
So, there are certain stages in standardisation procedure that linguists have discovered. One is called selection, where one variety is chosen and again this is where politics sort of creeps in; which variety is to be chosen? Then, second stage is codification and this is the part Hem told me you have looked at or heard in a previous session a little bit, building dictionaries and grammars. ISL RTC is very much involved in doing this.

And then elaboration is the third stage: producing a corpus or text, producing more material, teaching material, etc. Then dissemination through education, etc. All these stages, but at various stages here you have some kind of politics creeping in. And Rama Kant Agnihotri in fact proposes that ‘given the multilingual situation that we have as a reality in India we should have more inclusive method’, which is multi-variety dictionary, let us say. So, the varieties are mentioned and ISL RTC situated under the Ministry in Delhi is actually doing that; they are looking at certain major varieties. And then grammar is anyway universal from what I have said

at the beginning and also midway through the talk with parametric choices stated for particular variety.

So, if you find for example the way of asking question is different, let us say in the Bangalore variety than the Kolkata variety, you mentioned it although it is not different, it is same. The difference really is not in syntax, not in the underlying structure of the language, but in the vocabulary items. So, the sign for Monday or the sign for moon will vary madly across Mumbai, Delhi, Kolkata, Bangalore varieties. But that does not make them different languages and that does not create problems. As you know, people figure out, and deaf people specially with a little bit of interaction they figure out the differences and keep those differences in the mind while signing with a person with a certain background of a certain variety.

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Variation: Existing View

- In sociolinguistics the emphasis is on phonetic variation (e.g. between **sounds**).
- Variation studies therefore 'ignored' or 'neglected' **sentence-level** variation (Syntactic).
- Thus 2 varieties are seen as 'different' merely because their vocabularies are different, syntactic or structural differences are not a metric for determining difference.
- This has become the prevalent 'norm' *because only* **spoken languages** varieties were studied.

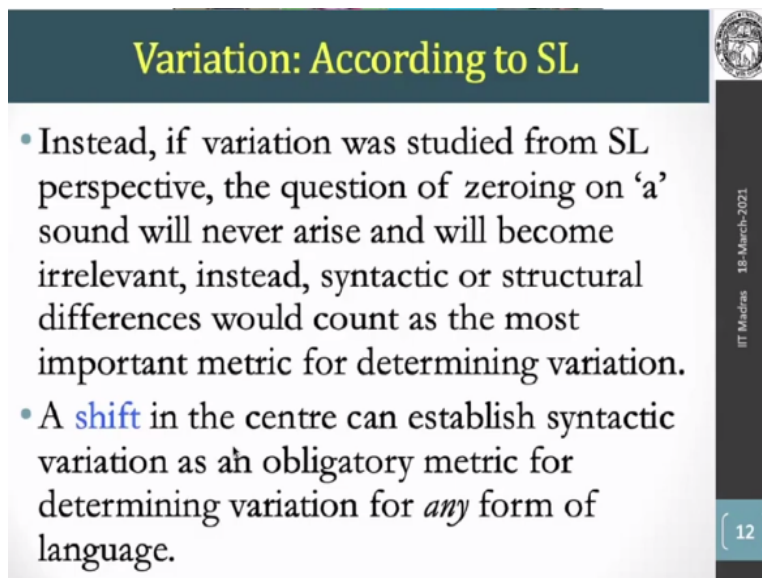
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So that was the first part. Second part is variation. Now the existing views in sociolinguistics emphasize really on phonetic variation ie. sound. In fact, I will tell you very briefly one of the famous studies called the New York study and in Macy's, a shopping mall with many floors. And the study was conducted in Macy's and people were interviewed. They were just asked a question with a hidden recorder about the location of a certain store, which floor and that happened to be on the second floor. So, different people would say 'second floor' differently, emphasizing different parts of the words and different pronunciations. So, they recorded all these different kinds of pronunciations. Then tracked those people, looked at their socioeconomic

background, language background, demographic background, etc. and sort of came up with this whole idea of variation of the 'r' sound which is preceded by some vowels or they are followed by vowels, etc. But that whole study of variation at the beginning in the 60s by William Labov actually set the standard for variation studies within linguistics.

And as a result of that all, the variation studies are mostly variation in sound. Now, if you are looking at sign language, you find it immediately irrelevant. So, variation studies therefore ignored or neglected some sentence-level variation. It is admittedly more difficult to study that sentence-level variation, but it was ignored for many years. It is only in the last 20 years or so, not sociolinguists but linguists who are working with grammar, have started looking at sentence-level variation. Thus two varieties are seen as different merely because their vocabularies are different, syntactical structural differences are not a metric for determining difference. This has become the prevalent norm because only spoken language varieties were studied. So, this is the existing view.

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Variation: According to SL

- Instead, if variation was studied from SL perspective, the question of zeroing on 'a' sound will never arise and will become irrelevant, instead, syntactic or structural differences would count as the most important metric for determining variation.
- A **shift** in the centre can establish syntactic variation as an obligatory metric for determining variation for *any* form of language.

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Now, variation according to sign language. I read out from my PPT. First point: “instead if variation was studied from sign language perspective, the question of zeroing on a sound will never arise and will become irrelevant, instead syntactic or structural differences would count as the most important metric for determining variation”. So, if you really want to show that the Pakistani sign language and Indian sign language are different, you better look at the sentence

structure or what is called sign language stream. Not sentence, but the sign language stream, the whole proposition and look at the structuring. If there is a difference in that, then one can establish difference. So, this is a very good point that linguistics knowledge really establishes not only that sign language like any other language, also the variation within sign language what matters and what does not matter.

“A shift in the centre can establish syntactic variation as an obligatory metric for determining variation of any form of language”. So, here I am saying that linguistics, if they learn from this perspective of sign language that variation may not be only on the sound, they will learn it only if they study variation within sign language varieties, then the whole perspective will shift about how you study variation. So that is one point where I think linguistics will definitely benefit by studying sign language.

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Word Order

As per language typology, every language has a more-or-less fixed word order:

a.	Kumaar	ate	rice (English)
	S	V	O
b.	Jōn	ballavə	däkka (Sinhala)
	John	dog	saw
	S	O	V
	John saw the dog.		

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Word order is another very important part which played its part in defining typologies of words. So for example, ‘Kumar ate rice’, that is in English and the order is subject (Kumar), verb (ate) and object (rice). So, these are called as SVO languages. Then let us say this Sinhala sentence I have put across. *John baklava dakka*. Here, it is ‘John dog saw’, so that is SOV.

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VSO

Welsh:

Gwelodd	Siôn	ddraig
saw.PAST	John	dragon
V	S	O

John saw a dragon.

VSO order also in Irish, Gaelic, Arabic, Hebrew, etc.


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Now you can also have VSO. So, this is Welsh. I would not try to pronounce it, you see this. Saw is the first word, second word is John and the third word is dragon. That is VSO. ‘John saw dragon’ is the translation, but you start with the verb and many languages like Irish, Gaelic, Arabic, Hebrew quite a few languages have this VSO word order. But these are the 3 main word orders.

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"Head" Parameter

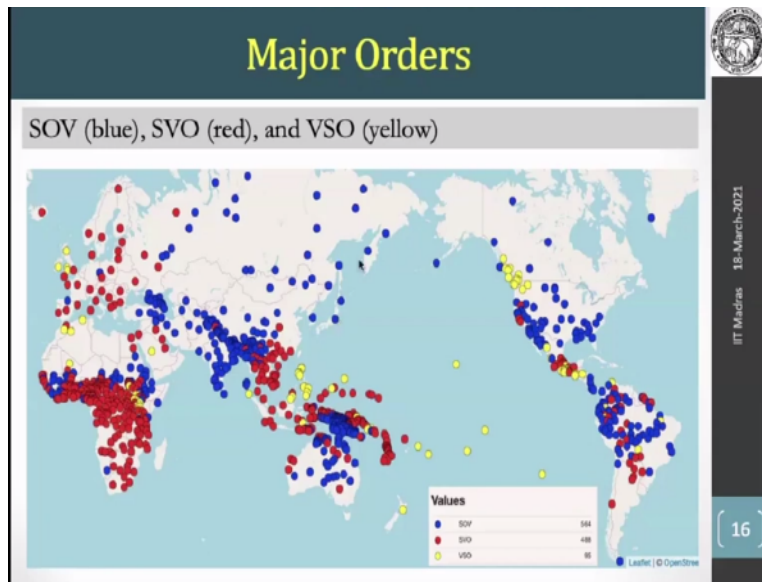
- Head medial S-V-O
- Head final S-O-V
- Head initial V-S-O

Other orders, like VSO, OSV are typologically rare


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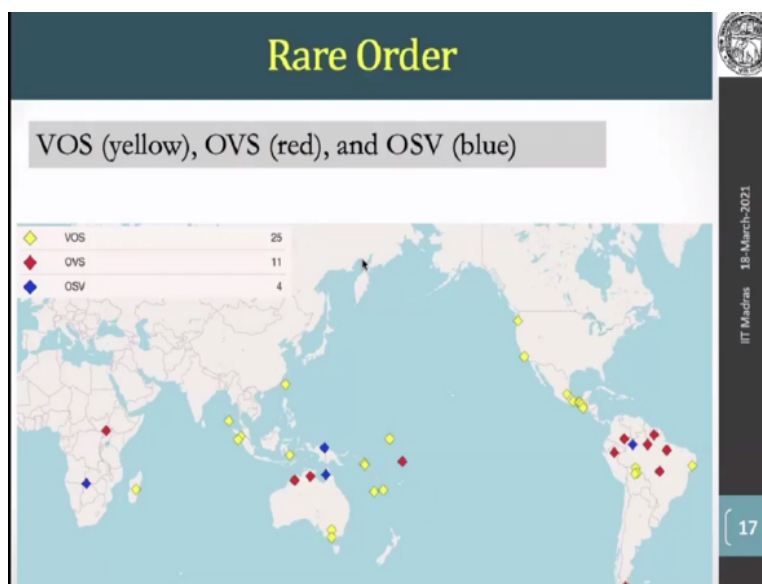
Head medial S-V-O, head because the verb is called the head. Head final, most languages we speak (except Khasi and Kashmiri) are S-O-V in India and head initial V-S-O. Sorry, VSO in the slide is a mistake. VOS, OSV are topologically rare.

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And you can see in these two maps. I will show this first map. You can see lots of blue points and there are in fact 564 blue points all across the world where you find languages with SOV word order. And then you find these red points which are also quite a lot, 458 in number. These are only handful languages; these are not all the languages of the world. This is one study and you see lots of them in Africa. And lots of them in Southern Europe and also oceanic languages Australia, little bit in Latin America you find them as SVO. Then you find very few actually 95 VSO language, so Arabic and the Middle East you find it, you find it somewhere in Eurasia, etc.

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Next map is the rare orders, that is, VOS, OVS and OSV. You can see the numbers are very less. VOS-25, OVS-11, OSV-4. Anyway, the point is that language are typologically categorized as per word order.

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Word Order & Other Processes

- Most languages in India have verb in final position of the sentence:
kumaar raajaa-v-ai ati-tt-aan
Kumar Raja-acc beat-pst-3sm
Kumar beat the Raja.
- SOV, but also notice other elements
- Case, Tense, Agreement (+ other (morpho)phonological processes)

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So you see this. I put a Tamil sentence here and you can do the right pronunciation, I would not do. 'Kumar raajaa-v-ai ati-tt-aan'. So this means 'Kumar beat the Raja', this is SOV, but also notice other elements which are marked with different colours. For example 'ai'; what is it doing there? It is marked in case (karaka). Then you have 'aan' with the verb 'beat' that indicates third person singular masculine. Then you have this long consonant 'tt' which is in between the stem of the verb and the final part of the verb, root of the verb and the final part of the verb and that indicates past tense. And there is of course 'v' with Raja which is purely phonological. So, these are other things, something which indicate case, tense, agreement and many other morphophonological processes are not very relevant for sign language.

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Word Order in SL

- Zeshan (2003) analysed IPSL as verb-final, and so did Sinha (2008), with some modifications.
- But Hidam (2014) shows that the phenomenon of **WORD ORDER** is problematic due to pro-drop, sentence-repetition, incorporation, etc.

Ulrika Zeshan analyzed IPSL as a verb-final language and so did Samar Sinha, 2008. He is an M. Phil from JNU, later on Ph.D. It is now turned into a book from Gallaudet University. Then Hidam Brojen Singh, my student. He studied his Ph.D. He said that word order is problematic. First of all, the word 'word' itself is problematic due to various things, majorly due to something called incorporation.

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Word Order: According to SL

- Simultaneous signing of two or more words

[SHE+SHE+CALL]

[SHE+I+CALL]

[I+SHE+CALL]

See this example. Let us say simultaneous signing of two or more words, let us say 'she called her'. You will have this calling and two points in the signing space and two points are related by this calling sign. Then if 'she called me', then I will have this sign pointing towards me. And 'I

call her' will be like this. And so, you sort of change the orientation and the direction of movement of your calling sound and that situates the pronouns and everything.

So basically, it is just one sign, but I have actually spoken the sentence. So anyway, I think maybe I will just stop there because I just wanted to show one or two examples of incorporation and that would explain why sign language, the concept of word order or sign order is problematic for sign language, but we could do it during the question answer session.