Phonetics and Phonology: A Broad Overview
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Lecture 05
Linguistic Diversity- Consonants in the Language of the World

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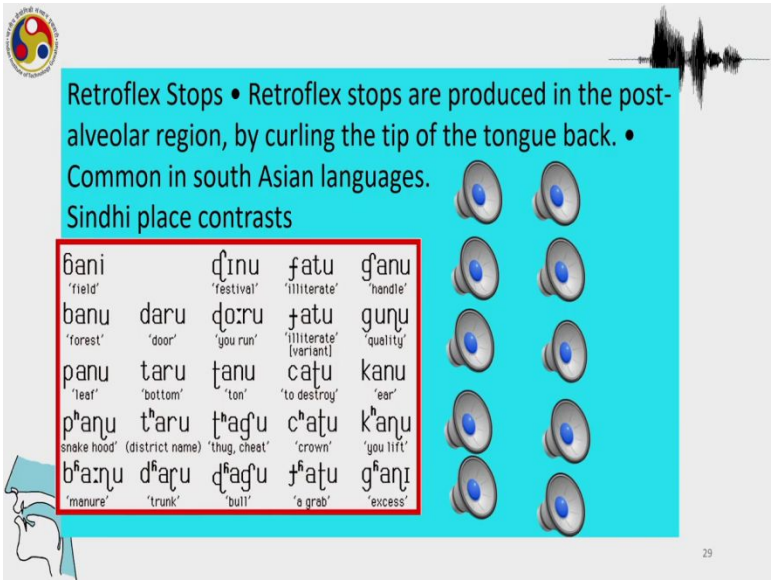

So, these are the retroflex stops produced by a Sindhi speaker and first I will produce the set of sounds. First is a retroflex and then other non retroflex sounds and then the other five sounds are the retroflex sounds. So, please listen carefully (pronouncing Sindhi). The second set of sounds were the retroflex sounds and the initial word da, the initial sound (pronouncing Sindhi) yes and same here (pronouncing Sindhi), ta; (pronouncing Sindhi), tha; (pronouncing Sindhi), dha. So, those are retroflex sounds produced by curling the tip of the tongue and such a way that the back of the tip touches the alveolar region, the post alveolar region.

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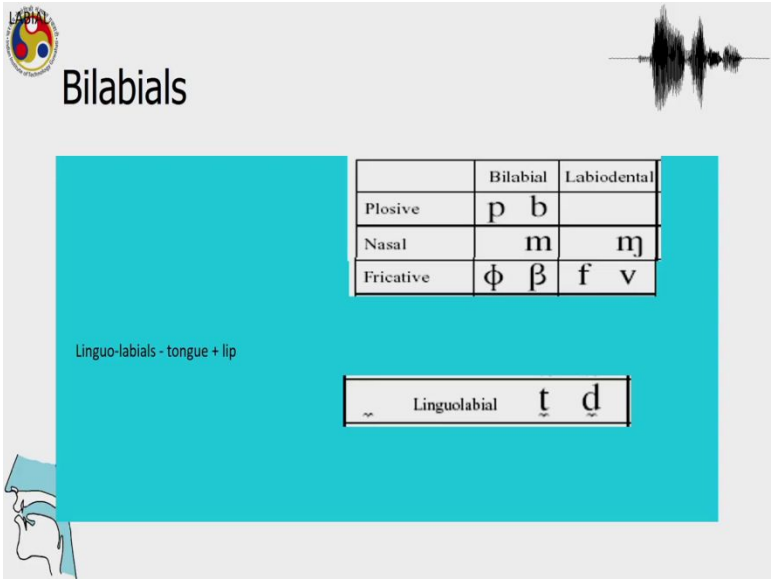

So, let us now review the places of articulation that we have looked at till now. So, and look at the corresponding symbols again, so now we can see that the bilabial plosives that we have talked about for English and which are very common in languages. So, these are the bilabial plosives. Then there is a bilabial nasal and then the labiodental nasal followed by the fricatives and then bilabial fricatives and labiodental fricative. The uncommon sound here is the linguo-labials that we saw before and there are two diacritics, this diacritic is used as a symbol for linguo-labials.

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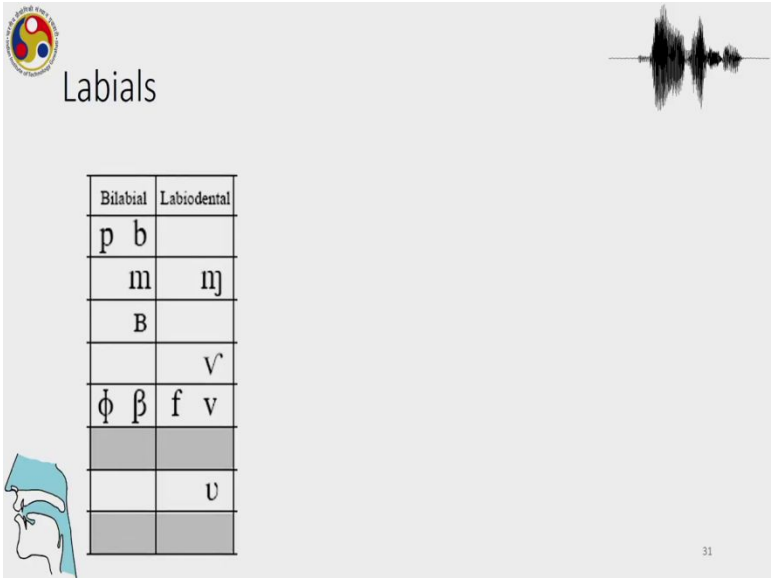

So, these are the labials. There are some trills, bilabial trills are there, there are approximants and in total we have stops, we have nasals, we have trills, we have fricatives and we also have approximants which could be produced in the labial region.

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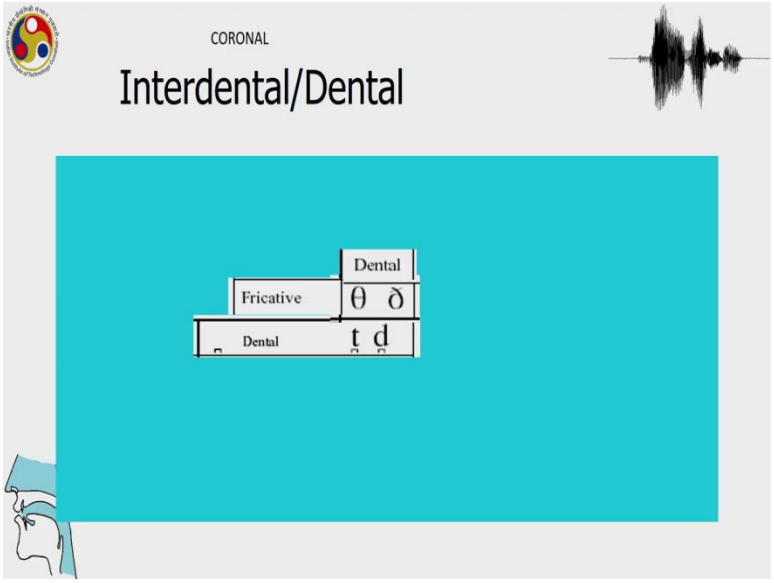

Now after labial, the place of articulation that we talked about is that of coronals. So, first in the coronal series we talked about interdental and dental sounds and these are the symbols the fricatives that are used for sa and za and this, the system, the stops use a symbol beneath the ta and beneath da, these are called diacritics which is used to show the dental place of articulation.

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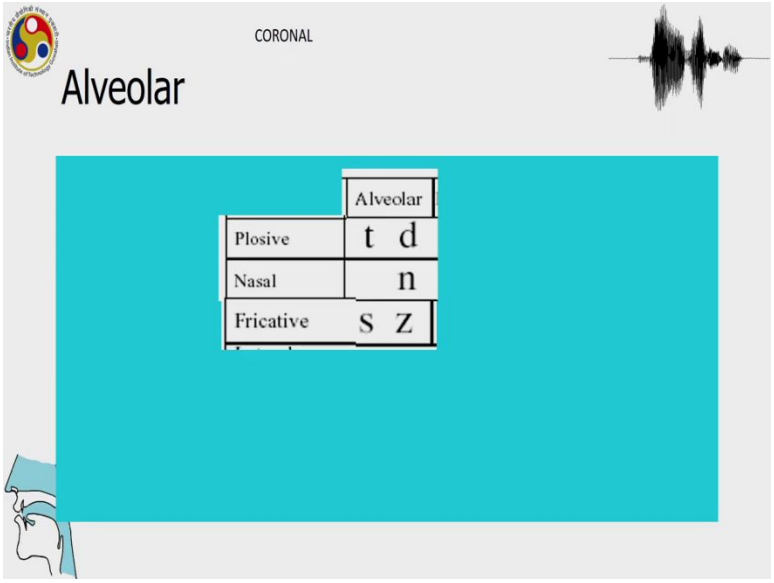

And for alveolar we have the very commonly used Roman tha, da symbols and so also the alveolar nasal and the fricatives sa, za.

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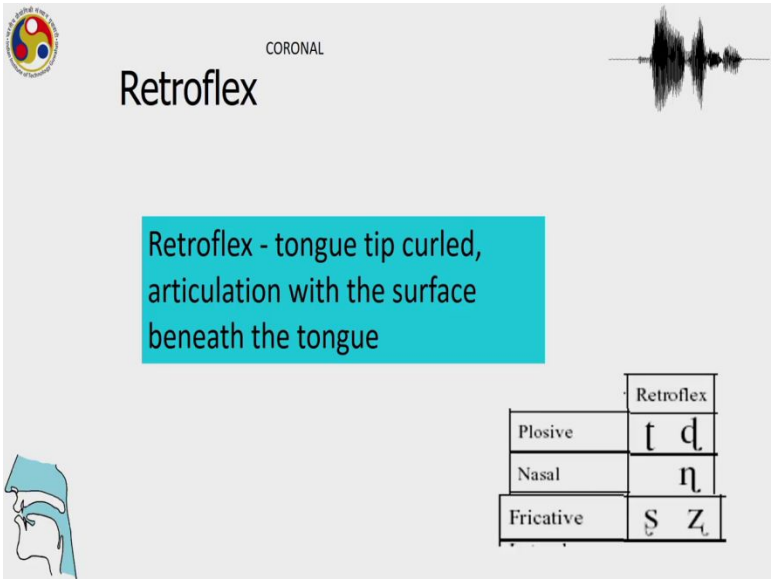

And we also just talked about retroflex and a retroflex is produced with the tongue tip curled and articulation with the surface where the surface beneath the tongue is curled up and the target area is that of the postalveolar region. These are symbols used to show retroflexes, ta, da, na, sha, zha.

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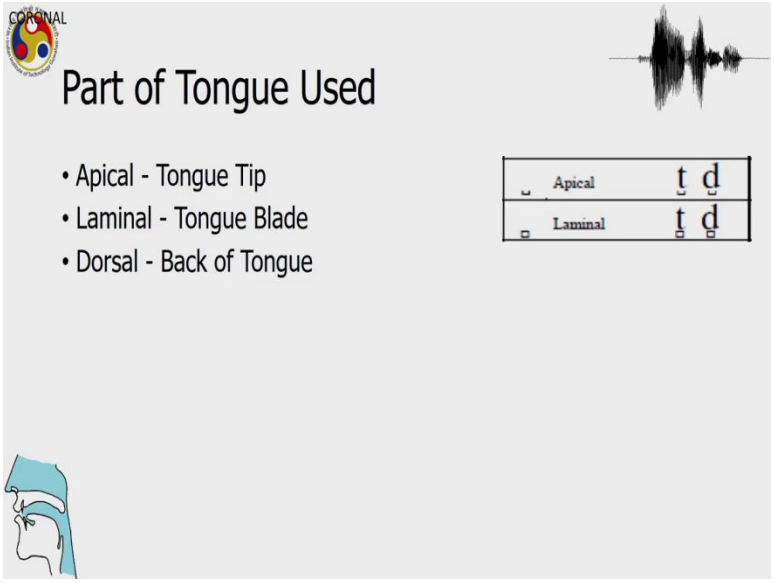

So, part of the tongue used depending on whether it is the apical or laminal these two diacritics are used to show apical versus laminal. So, this is the symbol for apical, this is a symbol for laminal.

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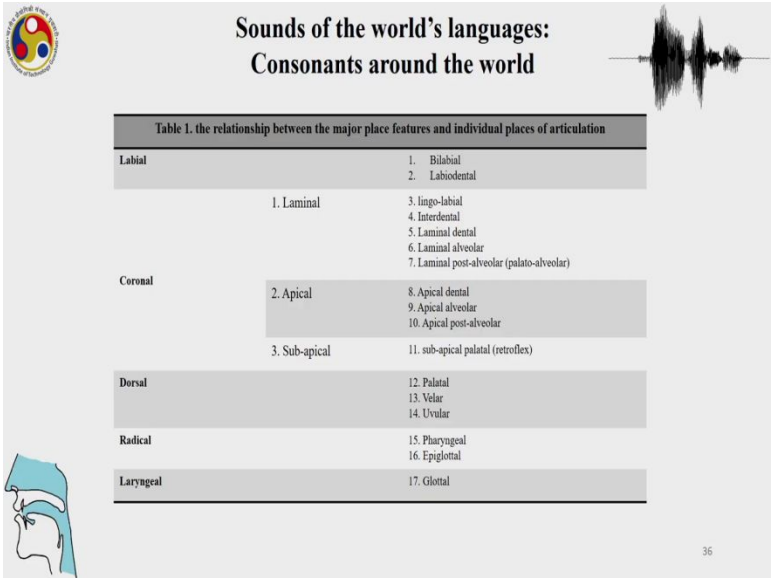

For labials, we have looked at bilabial, labiodental, lingo-labials, interdental, laminal dental, laminal alveolar and laminal postalveolar. In the coronal region we have seen apical dentals, apical alveolars, apical postalveolar and in the subapical region, we have seen subapical palatals which are retroflexes. So, these are the two places of articulation and we have seen now that

there are more variations possible inside the big categories of labial and coronal, we can see that the many more places of articulations which are possible and which may not be shown in the IPA chart, but which may be shown with the use of diacritics.

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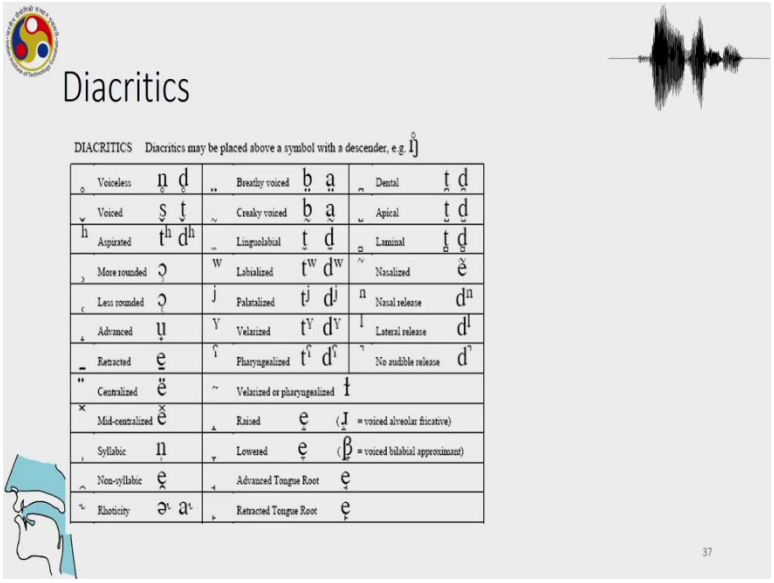

So, these are the diacritics that we just talked about that we have for voiceless sounds which can produced as voiced we have diacritics for that. For voiced sound which can be devoiced also have a symbol for that, symbols for aspiration, symbol for more rounding, less rounding, symbol for advanced, retracted, centralized and these are all vowels diacritics for vowels and mid centralized and also syllabic and non-syllabic etcetera.

So, for consonants here, we have breathy voiced, creaky voice and linguolabials, which we just showed and then labialized, palatalized, velarized, pharyngealized and these are the secondary articulations which we will see shortly and also these are the symbols for dental, apical, laminal, nasalized and nasal release, lateral release and no audible release. So, this is the symbol for no audible release and lateral with a la and nasal release with a na.

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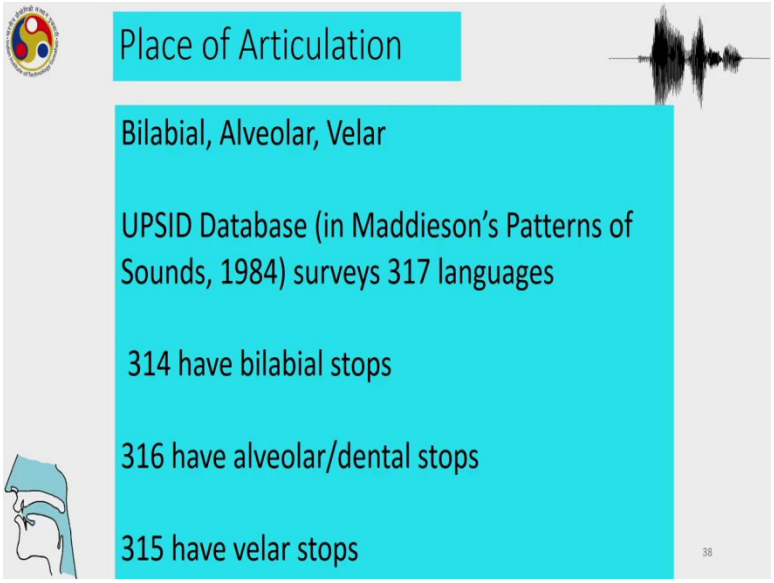

So, among all these categories distinctions that you saw among the sounds, the ones which are most common in languages are the bilabial, alveolar and velar place of articulation. In Maddieson's patterns of sounds we have of surveys 317 languages; there are 314 bilabial stops, 316 alveolar dental stops and 315 velar stops.

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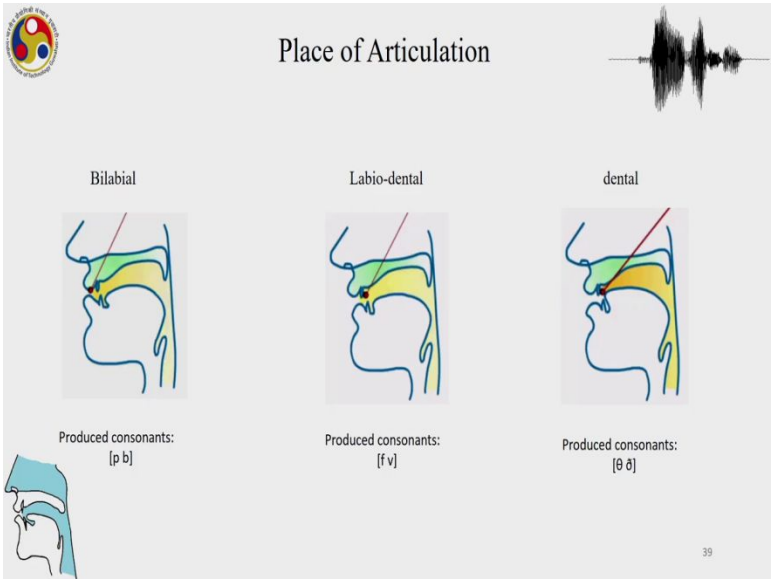

So, let us play these short videos of places of articulation so that we again see the basic differences between the place of articulation. So, this is a bilabial sound the lips coming together

this is a labiodental with the lower lip touching the upper teeth dental sound where the tip of the tongue or the tongue blade touches the teeth the dental region.

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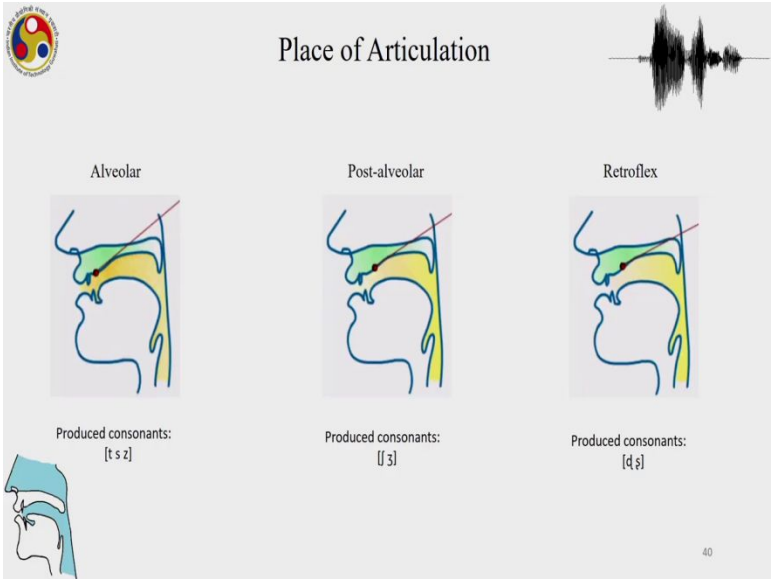

The alveolar where we have the tongue tip or tongue blade touching the alveolar region. So, this is the target, the alveolar region and here the target is a postalveolar region and the retroflex where we see the curling very clearly here. So, these are your alveolar, post-alveolar, retroflex.

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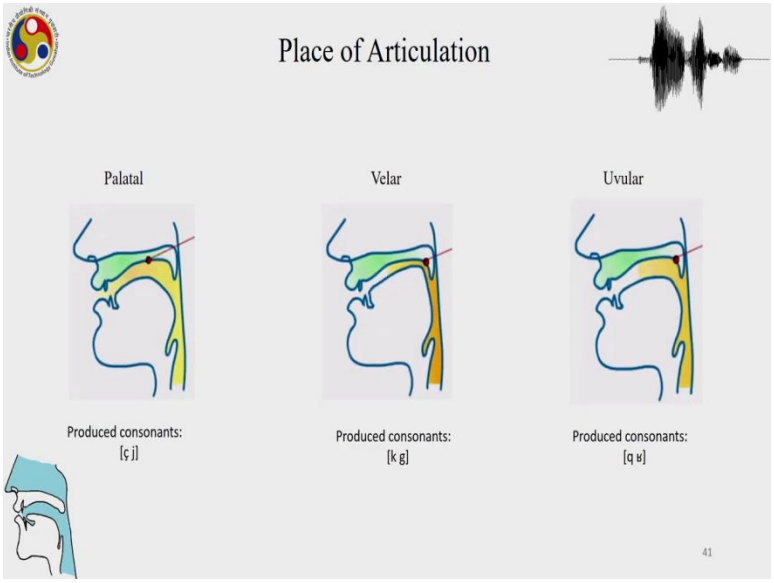

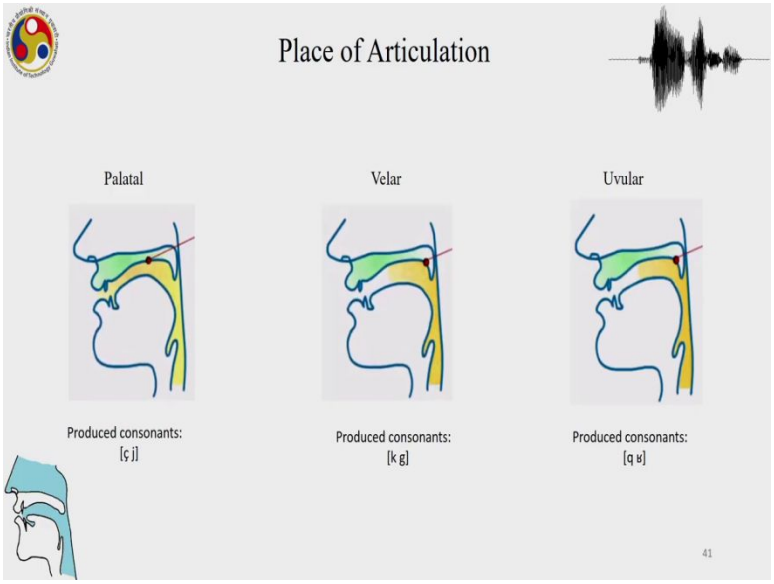

And then we are talking about the dorsal region. We have the palatal sound where the back of the tongue goes towards the roof of the palatal region. So, we can see the back of the tongue going up towards the palatal region and then here the gesture is the back of the tongue targeting the velar region and here we have the uvular region targeted by the back wall after tongue.

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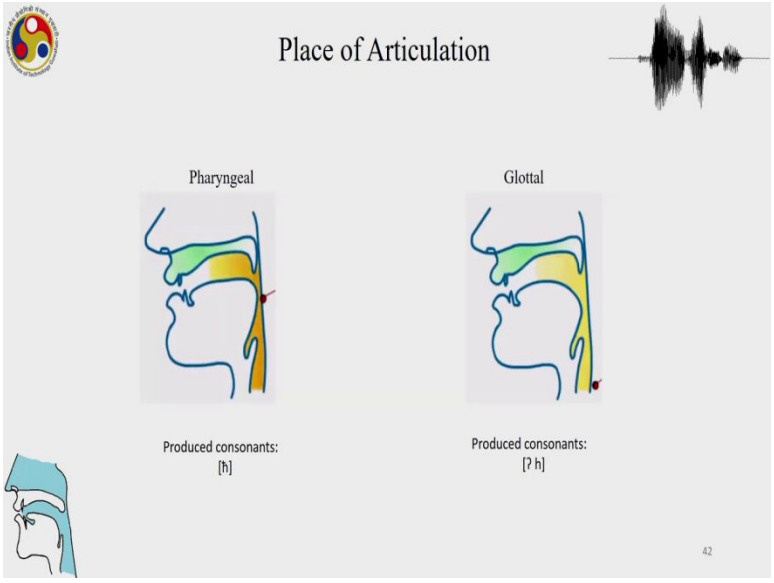

And then these are the radicals which we have not seen as yet or discussed as yet the pharyngeal and then we can have a glottal sound where the glottis is the place where we have a constriction.

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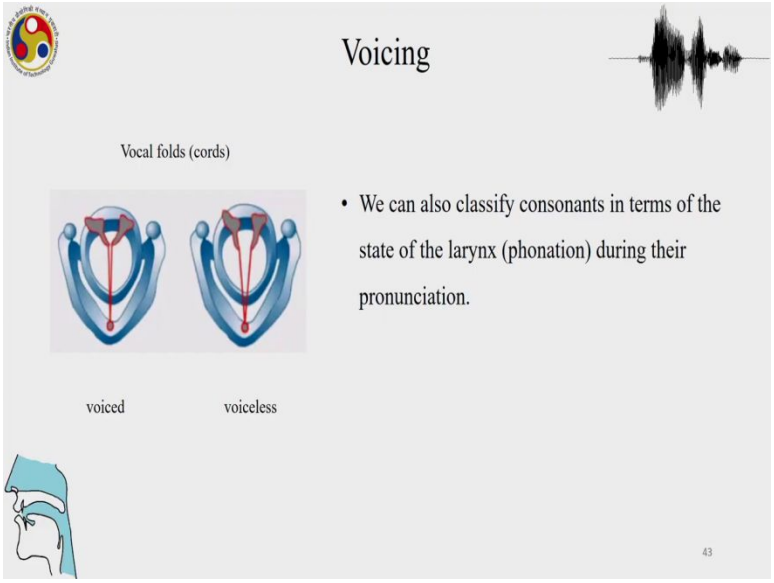

And of course in all these things voicing is always there as we discussed previously sounds may be voiced or voiceless where the vocal cords are neutral state versus this the vocal cords are vibrating.

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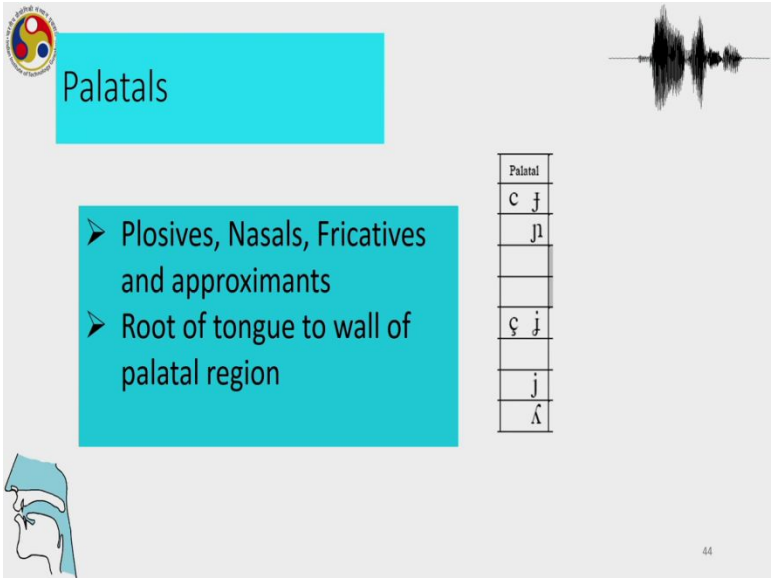

So, these are the dorsal sounds that we have not talked about the dorsal and the radicals which we will talk about now and so the palatal sounds which you just saw the root of the tongue makes targets the wall of the palatal region and these are the sounds that we can produce stops, nasals and fricatives and approximants can be produced in the palatal region.

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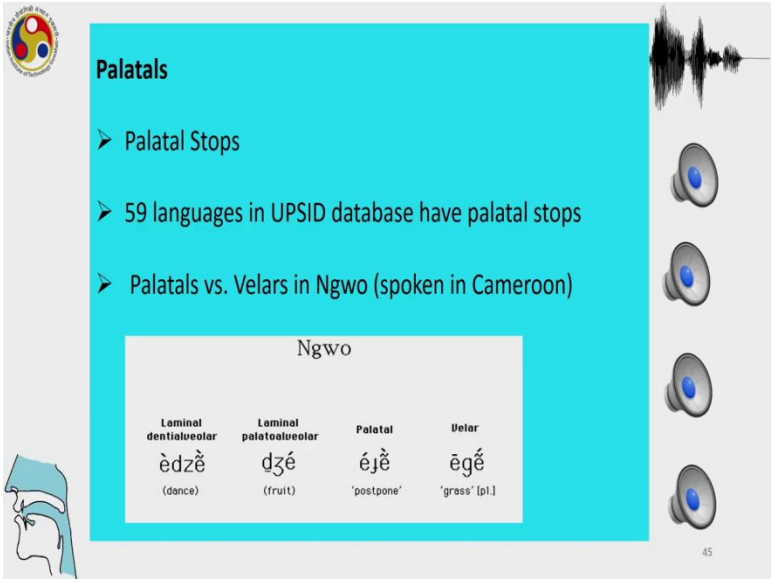

So, palatal stops are common and possible in languages of world, of the 317 languages 59 languages have palatal stops. So, we will play the sounds from Ngwo spoken in Cameroon and Ngwo we have distinction between laminal dental alveolar, laminal palato-alveolar, palatal and velar, so these are the four places of articulation which we will play now (pronouncing Ngwo).

So, distinctions between these four palatable, four regions, which are the laminal, dental alveolar the coronal sounds, the laminal palato-alveolar, palatal and velar. So, it is possible to make these distinctions to have all the places of articulation, the four places alveolar, palatal alveolar, palatal and velar in a language.

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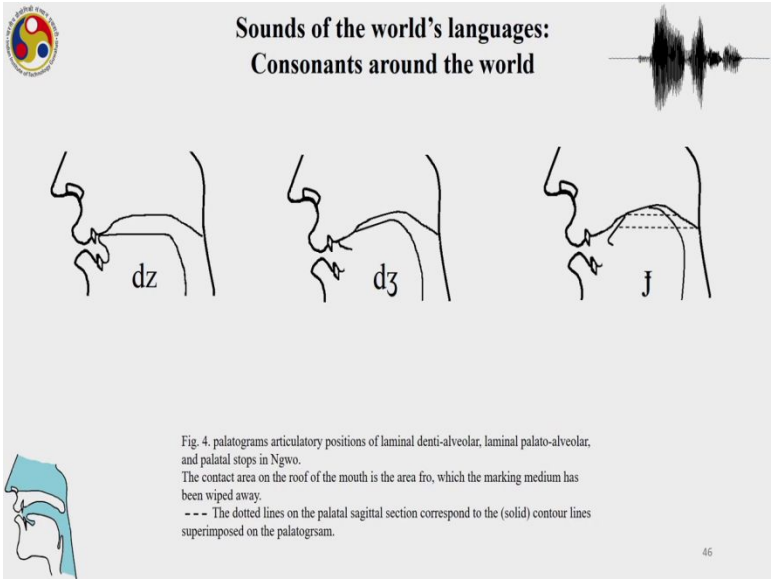

So, Ngwo which we just heard these are the articulatory positions of laminal denti-alveolar. So for the denti-alveolar sound, laminal the blade of the tongue makes an occlusion there in the alveolar region between the dental and the alveolar region and then we have the palato-alveolar and then we have the palatal sound and these are the three palatal stops in Ngwo. So, here the dotted lines on the palatal sagittal section correspond to the contour lines that were superimposed in the palatogram.

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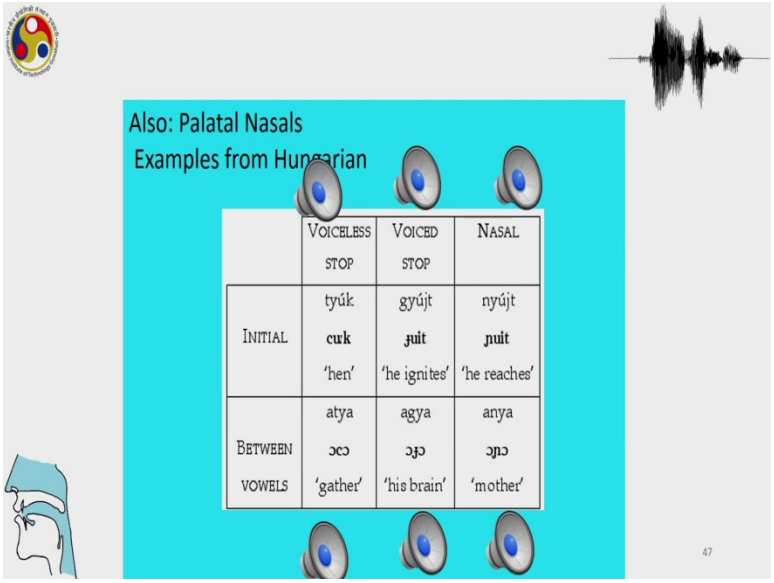

So, languages can also have palatal nasals (pronouncing Hungarian). So, these are the palatal nasals that occur in Hungarian so the stop, the voiceless stop the voiced stop and nasal (pronouncing Hungarian), these three occur between vowels and the nasal has a glide before the production of the vowel.

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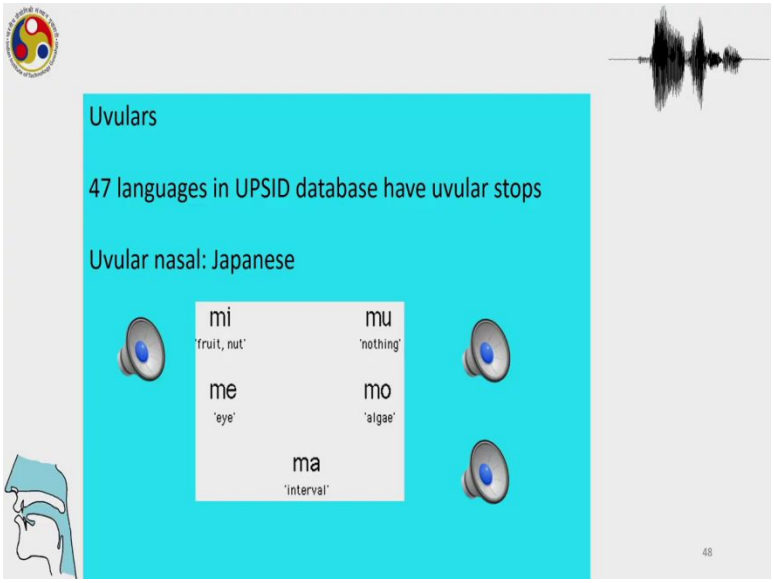

So, a lot of languages have uvulars and we will play the uvular nasals in Japanese before we wrap up today's session, (pronouncing Japanese). So, these are uvular nasals from Japanese. So, in this session, we have seen that languages can have very many places of articulation which we

do not see when we looked only at English. So, we do not understand, we did not look at the distinction between apical and laminal in the discussion of coronals.

In dentals we saw here in this lecture that there are many places of articulation which could be employed when we look at dentals, when we look at labials or when we look at coronals and there are other places of articulation like palatal, like uvular and velar where the back of the tongue is used and as against the sounds the coronal sounds where the tip or the blade of the tongue is used for making any occlusion and the production of stops and fricatives or in the production of approximate and nasals etcetera. So in the next class again, we will see more of place of articulation and manner of articulation and also see how phonation etcetera lend more characteristics to sounds in different languages of the world. Thank you for watching.