

Course Name: 'Introduction to Pāṇinian Grammar'
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Welcome, I welcome you all to this lecture in the course Introduction to Pāṇinian grammar. In this lecture we will study further the features of sounds produced by the process of speech production as described in the Pāṇinian grammatical tradition. We will focus on the consonants. The source that we have been studying is Pāṇinīyaśikṣā and the verses mention there in namely "ātmā buddhyā sametyārthān mano yuñkte vivakṣayā manaḥ kāyāgnim āhanti sa prerayati mārutaṁ mārutastūrasī caran mandraṁ janayati svaram sodīrṇo mūrdhnyabhīhato vaktramāpadya mārutaḥ varṇān janayate".

We also noted down the 8th stages described in these verses namely, 'ātmā buddhyā sametyārthān' the first 'mano yuñkte vivakṣayā' the second and these two are the cognitive stages, the rest of them are physical or biological 'manaḥ kāyāgnim āhanti' the 3rd, sa prerayati marutam the 4th, 'mārutastūrasī caran mandraṁ janayati svaram' the 5th, 'sodīrṇo mūrdhnyabhīhato' the 6th, vaktramāpadya mārutaḥ 7th and 'varṇān janayate' the final and the 8th one.

The sounds that are produced by this particular process we said that have some features length is a prominent feature and according to this feature these sounds can be straightway classified into groups the first one being the vowels which require more than one mātrā length for their production and the rest of them which require only half a mātrā for them to be produced by this particular process.

So, the sounds which require half a mātrā for their production they are called hal or vyañjana we have already studied this term hal when we studied how to form the pratyāhāra these two terms are commonly used to indicate the consonants. The consonants cannot exist by themselves in Sanskrit without the help of the vowels that is the important feature of these consonants. Amongst these consonants once again we can have some classifications.

The first group can be called semi vowels also known as antastha and we shall study why they are called antastha. The important point to note about these sounds is that these are consonants yet they are called semi vowels because in part they show partially the properties of a vowel.

Followed for example, the continuous flow of air stream to an extent, but not exceeding the length of a consonant namely half a mātrā. This is the reason why they are called semi vowels and because

if you look at the pratyāhārasūtra again it is these consonants which stand in between the vowels and the consonants.

And therefore, these are called antastha, remaining in between standing in between in between the vowels and the consonants hardcore consonants and therefore, these are also called as antastha. As said before they are called antastha because they remain in between as they remain in between vowels and consonants. So, they are placed in between vowels and consonants in the 14 sūtras as well, the reason is because they remaining between vowels and consonants.

So, let us look at these consonants one by one. The first consonant that we study is 'y' the place of articulation or the sthāna for this consonant is tālu or palate the ābhyantaraprayatna for this consonant is iṣatsprṣṭa slightly connect contact slight contact slight touch of the tongue with the place of articulation this is what is called iṣatsprṣṭa.

The ābhyantaraprayatna for this particular consonant is nāda resonance, ghoṣa voice and saṁvāra closure, this is also possessing the property of alparāṇa less breath or also called non aspirate the Pāṇinian grammatical tradition also notes that there are two varieties of 'y' which are possible. Namely, anunāsika and niranunāsika 'y' niranunāsika and 'ym' anunāsika two varieties just like vowels that is the reason why these are called semi vowels as well.

After 'y' let us go to 'r', 'r' is one more peculiar sound which does not have any anunāsika variety. The place of articulation for 'r' is the mūrdhan or the roof of the oral cavity the ābhyantaraprayatna for 'r' is iṣatsprṣṭa slight contact, slight touch of the tongue with the place of articulation. So, while pronouncing 'r' we all can observe that the tongue raises above and tries to touch the roof of the oral cavity.

It does not actually touch, but it comes very close to touch it and that is the reason why the ābhyantaraprayatna for this consonant is also called as iṣatsprṣṭa. The bāhyaprayatna for this is nāda ghoṣa and saṁvāra resonance, voice and closure. It is also having the property of alparāṇa or less breadth or non aspirate. 'r' does not have a nasalized variety it is niranunāsika, non nasalized consonants, there is no nasal pronunciation of that is possible in Sanskrit.

The next consonant that we study is 'l', this 'l' has the place of articulation namely danta tooth or teeth the ābhyantaraprayatna for 'l' is again iṣatsprṣṭa, slight contact, slight touch of the tongue with the place of articulation. So, while pronouncing 'l' the tongue moves towards the teeth or a tooth and it just stops short of actually touching it and that is why this 'l' is considered having the ābhyantaraprayatna iṣatsprṣṭa. The bāhyaprayatna of 'l' is once again nāda ghoṣa and saṁvāra as

described in the Pāṇinian grammatical tradition. The other bāhyaprayatna l possesses is alpaprāṇa or less breath or non aspirated. There are two varieties of l possible as described by Pāṇinian grammar l anunāsika and l niranunāsika.

The next we have is v, this is also a peculiar consonant its place of articulation is twofold danta and oṣṭha dantoṣṭhau tooth and the lips the ābhyantaraprayatna for v is the iṣatsprṣṭa once again slight contact slight touch of the tongue with the place of articulation. The bāhyaprayatna for v is nāda resonance ghoṣa voice and samvāra closure, the alpaprāṇa is also a kind of bāhyaprayatna that v has. alpaprāṇa is less breath or non aspirate.

There are two varieties of v recorded anunāsika variety as well as niranunāsika variety v or vm. So, these are the four antastha. The consonance that we have studied so far and they are semivowels. Now, let us go to the next set of consonants also termed as sibilants or also surds fricatives also known in Sanskrit as uṣma. Let us look at them. Now an important point to note about them is that these sounds require more amount of breath than normal consonants. Friction is experienced when these sounds are produced they are also known as surds, they are also known as fricatives.

Let us look at them one by one. The first sound is ṣ the place of articulation is tālu for this palate, the ābhyantaraprayatna for this sound is vivṛta or open as per the description of the Pāṇinian grammatical tradition. The bāhyaprayatna for ṣ is śvāsa breath aghoṣa voiceless, vivāra openness and this is also a mahāprāṇa it requires more breath it is also an aspirate. ś this is how it is pronounced ś.

Let us look at the next consonant in this set this is pronounced as ṣ in contrast with ś the earlier sound was ś this is ṣ. The place of articulation of this sound is mūrdhan or the roof of the oral cavity. The ābhyantaraprayatna for this sound is vivṛta or open the bāhyaprayatna for this sound ṣ is śvāsa breath, aghoṣa voiceless, vivāra openness and also mahāprāṇa more breath or this is an aspirate sound. Let me repeat the pronunciation of this sound this is pronounced as ṣ ṣ manah ṣaṣṭhāni indriyāṇi and so on. sh in contrast with the previous sound ś. This sound is a very peculiar sound in Sanskrit and has also come down to modern Indian languages.

The next sibilant sound is s whose place of articulation or sthāna is danta tooth or teeth the ābhyantaraprayatna is vivṛta or open the bāhyaprayatna is śvāsa or breath, aghoṣa voiceless, vivāra openness and this is also mahāprāṇa having containing more breath it is called an aspirate, this is what is s.

Then lastly we have h, the place of articulation of h is kaṅṭha the ābhyantaraprayatna is vivṛta or open and the bāhyaprayatna is different than ś ṣ and s, the bāhyaprayatna of ś ṣ and s as described earlier is śvāsa aghoṣa and vivāra, but the bāhyaprayatna of h is nāda resonance ghoṣa voice and saṁvāra namely closure that is the difference. h is also mahāprāṇa it requires more breath also called as aspirate this is how h is described as part of this Pāṇinian grammatical tradition h is also said to be produced from another place of articulation called uras, the other features being the same. After having studied the antastha consonants as well as the sibilant consonants let us now study one more set of consonants called ayogavāha.

The meaning of the term ayogavāha can be explained in the following manner there are two components ayoga and vāha and ayoga also has two components a and yoga. Now, a and yoga yoga is association vāha is something that carries. So, ayogavāha means a consonant which is carried only when associated with a; that means, a consonant which is pronounced only when it is associated with a which means when a stands for all vowels and so, then it means that consonant which is carried only when associated with a vowel.

So, this does not have independent existence without a vowel this is the difference the previous consonants that can be pronounced independent of vowels individually they cannot occur in sequence that is a different matter without a vowel there are very few exceptions. But these consonants that cannot be produced without a vowel and the other explanation of ayogavāha is the sounds which are carried by the association of a which means these sounds are uttered immediately after a in the pratyāhārasūtra.

So, a I u ṅ is the first sūtra in the pratyāhārasūtra and it is these sounds which are uttered immediately after a and before i as far as the tradition is concerned. They have noted down by the tradition after a and before i and therefore, they are called as ayogavāha. There are four sounds which are listed under this category of ayogavāha and they are anusvāra visarga jihvāmūliya and upadhmānīya. Let us look at the features of these four sounds individually.

The first one is anusvāra is pronounced from nāsika. So, the place of articulation of anusvāra is nāsika or nose. The ābhyantaraprayatna of this is spr̥ṣṭa or touch or contact the bāhyaprayatna of anusvāra is described as nāda resonance, ghoṣa voice and saṁvāra the closure the consonant anusvāra is written with a dot on top of a letter.

The next is visarga, the place of articulation for visarga is kaṅṭha or velum the ābhyantaraprayatna is spr̥ṣṭa touch or contact the bāhyaprayatna is śvāsa breath, aghoṣa voiceless and vivāra openness this is also described as mahāprāṇa that is having more breath or being an aspirate sound. The

visarga is written by adding two vertical dots after a particular letter after a particular letter representing a vowel aḥ iḥ uḥ etcetera.

Let us now look at the jihvāmūlīya as the name suggests this sound is produced from the jihvāmūla. So, the place of articulation of this sound is jihvāmūla namely the root of the tongue. The ābhyantaraprayatna of this sound is spr̥ṣṭa touch or contact, the bāhyaprayatna of this sound is śvāsa breath aghoṣa voiceless and vivāra openness, this is also a mahāprāṇa it requires more breath to pronounce this is also an aspirate sound. Two half circles placed upside down before. k and kh is how this sound is written down.

The next sound is upadhmānīya, in this category of ayogavāha. The place of articulation of upadhmānīya here is oṣṭhau lips ābhyantaraprayatna of upadhmānīya is spr̥ṣṭa touch or contact the bāhyaprayatna is śvāsa breath, aghoṣa voiceless vivāra openness. This is also a mahāprāṇa requiring more breath for its production. This is also an aspirate sound. Two half circles placed upside down before p and ph are the upadhmānīya sound representations as far as the writing symbols are concerned this is how they are written. So, these are the four sounds also known as upadhmānīya.

To summarise what is the function of these features the function is that these features act as parameters in selecting a substitute from amongst many, in place of a substituent also specified by the meta rule 1.1.50 sthāne'antartamaḥ stated by Pāṇini. There is one more important thing to remember here which we stated in the last lecture namely that we are studying and trying to understand the explanations of these features as given in the Pāṇinian grammatical tradition.

In this course we are not going to compare them with the modern description of these sounds they differ yes surely they differ the point is that we are studying these features as described in the tradition with the help of which we will be able to understand the overall system that was built by Pāṇinian and we should understand what these features stand for and how they these sounds are described in the modern linguistics which uses modern technological tools later on in the advanced level course whereas, here we only try to understand the description of these sounds given in the Pāṇinian grammar. Now, what remains is the class consonants the 5 rows and the 5 columns described in the traditional sound inventory, we shall study these sounds in the coming lecture.

I thank you for your attention.