

**Course Name: 'Introduction to Pāṇinian Grammar'**  
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Welcome. I welcome you all to the lecture in the course Introduction to Pāṇinian grammar. In this course we are studying the Pāṇinian grammar. In the process so far we have studied parts of Process of Speech Production and we continue to study it further in order to study the process of speech production as described in the Pāṇinian grammatical tradition.

We studied the source material that we got from Pāṇinīyaśikṣā and we studied the following verses "ātmā buddhyā sametyārthān mano yuṅkte vivakṣayā manaḥ kāyāgnim āhanti sa prerayati mārutaṁ mārutastūrasi caran mandraṁ janayati svaram sodīrṇo mūrdhnyabhihato vaktramāpadya mārutaḥ varṇān janayate". Then we also said that there are these eight stages of speech production described in these verses. They are ātmā buddhyā sametyārthān that is the 1st stage. mano yuṅkte vivakṣayā is the 2nd. manaḥ kāyāgnim āhanti is the 3rd. sa prerayati mārutaṁ is the 4th. 5th is mārutastūrasi caran mandraṁ janayati svaram. 6th is sodīrṇo mūrdhnyabhihato. 7th is vaktramāpadya mārutaḥ and and varṇān janayate is 8th.

We also saw that the first two stages they describe the internal process, the internal programming so to speak the rest of them they describe the biological or the physical part of the process of speech production. And we have been studying this internal process for some time now, but the importance of this process should not be undermined and that is the reason why we have been studying this in little detail. And we shall study this in more detail when we do the advanced course. Right now, let us study some other aspects in this first stage which are enlisted on this slide. In addition to the existence of the arthākāśa, which is structured in accordance with the principles of congruity yogyatā and mutual expectancy namely ākāṅkṣā as described in the previous lecture related to the basics of human cognitive apparatus where the sense organ and the domain are interrelated.

In addition to all this there are some other aspects to this arthākāśa, which need to be studied and they are enlisted here which we shall study now. The first one is called Arthasaṅgraha, the second one is Arthavigraha and finally Arthagraha. So, the question is these Arthasaṅgraha etcetera they are also linked with śabdākāśa. So, these are the parts of arthākāśa in which links of Arthasaṅgraha with vākya in śabdākāśa is also a part of.

Similarly, links of Arthavigraha with pada in śabdākāśa is also part of the arthākāśa and links of Arthagraha with the prakṛti and pratyaya namely the root and the suffix in the śabdākāśa is also part of the arthākāśa. So, what is śabdākāśa and what are the parts of śabdākāśa? vākya is; obviously, an important part of the śabdākāśa vākya is the sentence which is made up of pada namely the words, which is also part of the śabdākāśa.

And pada are made up of prakṛti and pratyaya roots and suffixes. So, they are also part of the śabdākāśa. This is the basics of śabdākāśa. We may also find the other derived aspects of śabdākāśa in what is described on the right hand side for example, a grantha or a book this is also part of the śabdākāśa, but on a larger scale, which is made up of its components for example, adhyāya or a chapter which is further made up of pada a subchapter and so on, which is made up of let us say pariccheda or paragraph.

And then vākya etcetera is part of this paragraph all this is part of the śabdākāśa which is linked with arthākāśa. The correlation of arthākāśa and śabdākāśa needs to be studied in this context. So, Arthasaṅgraha mentioned earlier, which is part of the arthākāśa is correlated to the vākya as far as a sentence is concerned. arthavigraha which is part of the arthākāśa is related to the pada namely the word.

Arthagraha let us say of prakṛti is related to the prakṛti which is part of the śabdākāśa arthagraha which is part of the arthākāśa which is related to the pratyaya is linked to the pratyaya or a suffix which is part of the śabdākāśa. This is how the correlation exists and the arthākāśa thereby gives rise to the śabdākāśa. Remember this is still ātmā buddhyā sametyārthān this is still a cognitive apparatus this is still the intellect we have not yet gone beyond this, but we need to understand what this ātmā buddhyā sametyārthān is, śabdākāśa and arthākāśa.

So, this arthākāśa exists in the intellect this śabdākāśa also exists in the intellect only as parts of the intellect we can say and they are correlated as described so far and also on this particular slide all this is part of the intellect part of the stage of ātmā buddhyā sametyārthān. So, next question is what is Arthasaṅgraha? So, the next question is what is Arthasaṅgraha? As is visible there are three words mentioned here artha sam and graha.

Let us look at their meaning. So, arthasaṅgraha stands for a specific unitary meaning as a whole artha is meaning and saṅgraha is a unit cognized as one cognized together what it stands for is a specific unitary meaning, which is indivisible. Also known as akhaṇḍa and here the word graha can be compared with the star ākāśa can be compared to the sky.

And so there is one special star which is one unit maybe a group of stars, but given one unitary status in the sky of arthākāśa that is the connotation of arthasaṅgraha. If you look at this this is 'Rama goes to a village', this is the meaning and there are these square brackets within which this is put. So, this square bracket over here and here these brackets indicate that this is one unit, this is one unit.

And this is what is primarily saṅgrah or arthasaṅgraha, this unit taken as one unit one indivisible unit. Now, what is arthavighraha? arthavighraha is the same one unit, but separated in its many components called padārtha or word meanings this is divisible or compositional also known as akhaṇḍa. We can say that many small parts making a particular star in the arthākāśa. So, the same 'Rama goes to a village' as one indivisible unit of meaning can be further divided or separated in the following units.

So, we keep the square brackets to indicate its correlation with the one meaning, which was stated on the earlier slide, but we put the parenthesis to indicate the separated units. So, for example, doer Rāma, this is one unit of meaning separated from the rest, object village this is another unit of meaning.

And the action of going in the present tense, whose agent is third person singular third person this is the separated padārtha that we have this is what is called arthavighraha. And what is arthagraha then; arthagraha is the same many units separated further in its atomic components; whereby we get what we term as linguistic atoms these atoms are generally not divisible.

We can say that these are many many small parts making a star. So, here are the small units arthagraha, which make the saṅgraha and vighraha possible they are let us say Rāma, village, object, action of going, present tense, agent, third person and singular. These are the linguistic atoms in terms of meanings and they are the arthagraha, they are the small stars which make the bigger units the bigger stars and those bigger stars make one unit as one star.

So, this is what is arthagraha, and this is how arthagraha is related to arthavighraha and arthasaṅgraha. Let us look at the correlation with an example. Earlier we took an example namely 'Rama goes to a village' and we put this entire meaning into square brackets, which will be termed as arthasaṅgraha where everything is one unit we know it as one unit.

Then if we go to do arthavighraha we do doer Rāma object, village, the action of going in the present tense whose agent is third person singular third person this is arthavighraha and arthagraha is Rāma, village, object, action of going, present tense, agent, third person and singular. So, this is what is the arthākāśa.

Wherein you have Arthasaṅgraha arthavighraha and arthagraha possible and there is; obviously, the correlation between the arthākāśa which are simple derivate and super derivates and there is also some kind of congruity at this level these are all super derivates the action of going related to Rāma and villages and object and so on and so forth.

There is this super derivate aspect that is playing its role over here. Now this arthākāśa at these three levels it is correlated with the śabdākāśa in terms of vākya pada and prakṛti pratyaya. So, the vākya that is correlated with the Arthasaṅgraha is in Saṃskṛta 'Rāmo grāmam gacchati', this is one sentence which expresses one meaning.

So, what is the meaning of 'Rāmo grāmam gacchati'? Rāma goes to a village this is how we communicate in daily life when we communicate using language we communicate using sentences we utter complete sentences 'Rāmo grāmam gacchati'. And we understand one complete meaning Rama goes to a village this is one indivisible unit of sentence that is śabdākāśa, this is one indivisible unit of arthākāśa this is what is called Arthasaṅgraha.

Now, the arthavighraha is like this doer Rāma object village etcetera, which has a correlation in the śabdākāśa level in the form of pada and so this vākya is then made up of these pada and you see this was written as grāmam with anusvāra on top of it a dot on top of it now here it is written as 'm' separated because this is a pada which has an independent separated identity shown with the square brackets and gacchati finally.

So, here there are three pada parts of the śabdākāśa which are correlated with the arthavighraha which is part of the arthākāśa. Now, if you go to arthagraha in the arthākāśa it is correlated with the prakṛti and pratyaya root and suffix in the śabdākāśa level. So, Rāma at the arthākāśa level as arthagraha is correlated with the prakṛti and pratyaya part in the śabdākāśa village an object grāma and an action of going, present tense, agent, third person is correlated with gam and ti and su at as far as the śabdākāśa level.

So, this is how the arthākāśa on this side of the slide and the śabdākāśa on the right hand side of this slide they are correlated. So, the arthākāśa gives rise to the śabdākāśa ah this is still at the level of ātmā buddhyā sametyārthān, this is still located in the intellect. So, this is the correlation

example. Now, so far we have been studying this stage of ātmā buddhyā sametyārthān namely the collection of meanings, let us summarize it and see what all it includes. We can say that this stage includes the collection of words links linked to the meanings

It is these words which get converted into speech signals. Remember the collection of words here is still at the level of intellect and the meanings here are still at the level of intellect located within the intellect, words as well as the meanings both are located in the intellect in the cognitive apparatus. And it is these words and these meanings located in the intellect, which get converted into speech signals by the subsequent stages in the process of speech production.

And when these words located in the intellect they get converted into the speech signals we say that these express the meanings and these speech signals are then the audible speech symbols. Now these words which are still at the level of intellect which get converted into speech signals, which express the meanings they are still parts of the śabdākāśa the words at the intellect level.

Now, the collection of both the arthākāśa and śabdākāśa are independent of external means to express them. These arthākāśa and śabdākāśa and part of them they can be expressed by multiple means independently or even together. This is what is expressed by a diagram shown over here.

So, in this diagram the process of speech production is described from the speakers point of view in which the cognitive apparatus is playing over here. This is a bracket showing one unit, it consists of arthākāśa and śabdākāśa and this bracket also is corresponding with the left bracket showing that this is one unit Arthasaṅgraha, which can be converted into arthavigraha which is shown internally.

So, this arthākāśa consists of lexical meanings for example, the verbal meaning as well as the nominal meaning on one side and the relational meaning on the other namely the verb and noun meaning and noun and noun meaning the relation between them and then the co occurrence of these meanings happening in the arthākāśa.

So, lexical meanings appearing together and relational meanings appearing together and then both of them appear together. So, occur together this is what is the cooccurrence this is part of the arthākāśa this is the beginning now this gives rise to the śabdākāśa, which consists of the corresponding lexical items namely the verbal as well as the nominal corresponding with the verbal meaning and the nominal meaning.

Similarly, the relational meaning gives rise to the relation suffixes in the śabdākāśa these are the suffixes which indicate the relation between verb and noun and the suffixes that indicate the relation between noun and noun these are relation suffixes. Similarly the cooccurrence in the arthākāśa also gives rise to the cooccurrence in the śabdākāśa.

The fact that these meanings are uttered are collected in close proximity also gives rise to the śabda to be uttered in close proximity. Once this stage is over in the cognitive apparatus where arthākāśa and śabdākāśa have played their roles then it is processed further in which these lexical items which are infinite in number and they involve some creativity new lexical items are created.

Earlier lexical items are lost and so on. So, they are called to be infinite, these lexical items which are part of the cognitive apparatus then are propelled further and then they produce what is known as root and termination; termination is a suffix which shows relations root is the lexical item. So, in this particular audible speech there are three roots and three terminations and there are the square brackets as well indicating its one unitary status which consists of three words

And these words also consist of three roots and three terminations. So, now, these lexical items which are part of the śabdākāśa they produce this audible speech which consists of R1 and T1, R2 and T2 and R3 and T3. Now, these lexical items in the śabdākāśa have given rise to R1 which is part of the first word, R2 which is part of the second word and R3 which is part of the third word.

These roots are indicated by blue lines. Similarly, the relational meaning which is part of the arthākāśa which gave rise to the śabdākāśa in the form of the relation suffixes which express the relation between the verb and noun and the relation between noun and noun this gives rise to the terminations which are part of the audible speech. Termination 1 which is part of the first word, termination 2 which is part of the second word and termination 3 which is part of the third word

And then the co-occurrence, which is dependent on the meanings in close proximity gives rise to the co-occurrence of the words. In the cognitive apparatus gives rise to the cooccurrence of all these together which is indicated by the plus sign over here which is part of the audible speech. So, the relational suffixes are shown with the green arrows and the co-occurrence is shown by saffron arrows going towards these two plus signs. So, there are these three words which are made up of three roots and three terminations and these three words made up one make one sentence.

And these three words are interlinked they are in close proximity with one another and this is indicated by two plus signs. And so all these put together there is one whole unit which is shown by the square brackets this is how the speaker produces the speech. So far we have been studying

this process cognitive apparatus arthākāśa and śabdākāśa. Now in this diagram we show how this gets directly related with the audible speech.

Now, we need to study all the processes in between, but still this is the outcome this is the output and this is how the internal cognitive process namely ātmā buddhyā sametyārthān is directly related to the output namely the audible speech. This is how the speaker produces the speech. Now as we said before this cognitive apparatus and these stages of arthākāśa and śabdākāśa they provide a clue to the speaker to check whether these combinations they express the arthākāśa and śabdākāśa which exists over here or not.

If something goes wrong in between a speaker can cross check and the speaker can issue the corrigendum saying that the speaker did have something else in this in this stage popularly, the speaker did have something else in the mind and something else got reproduced. So, what exists in the arthākāśa and śabdākāśa over here can act as a check for what is produced in the audible speech this is the speakers point of view.

Let us now look at what happens as far as the hearer is concerned. So, the hearer first receives these signals the audible speech this signal this is unitary and he cognizes one unit of this signal which leads to the cognitive apparatus and the śabdākāśa given rise to in the form of one unit which is also then separated at the level of arthavigraha and this arthavigraha happens in terms of the lexical items which are infinite.

But in this sentence they are finite and there are only three lexical items over here roots which are shown once again by the blue, but the arrows are different now because now this is the input and this is the output as far as the hearer is concerned. So, the arrows come from the audible speech to the cognitive apparatus as far as the hearer is concerned. So, there are three blue arrows coming from R1, R2 and R3 to this śabdākāśa called lexical items verbal as well as nominal.

Now, this śabdākāśa which is part of the cognitive apparatus gives rise to the arthākāśa, which is full of lexical meaning verbal meaning as well as nominal meaning. Similarly the relational meaning which is the output over here now the input is the terminations, the words, terminations, audible speech. So, T1, T2 and T3 and there are green arrows coming from these three which give rise to the śabdākāśa in the cognitive apparatus and that śabdākāśa consists of relation suffixes in the form of verb and noun relation and noun and noun relation expressing suffixes.

And this gives rise to the relational meaning in the form of verb noun meaning and noun noun meaning relations. And of course, the co-occurrence which is in the form of these two plus signs,

which are finite in number and it is these plus signs which indicate the structure along with the terminations of the sentence. So, they give rise to the co-occurrence in the śabdākāśa which gives rise to the co-occurrence of meanings in the arthākāśa.

And then this Arthasaṅgraha at this stage generates the understanding what is called as understanding as far as the cognitive apparatus is concerned and then probably we decide whether the communication has actually happened or not. So, these two diagrammatic representations of the speakers point of view and the hearers point of view explain the correlation between the śabdākāśa and arthākāśa in the reverse order and the audible speech.

Now, this can be explained in the following manner R stands for root which is atom root in finite in number, they can be created more and some of them can be lost etcetera. Termination suffix is called T which is called also atom T this is finite in number. They define the structure in Sanskrit. The relations they are the relations between roots noun verb noun noun and they are finite in number. Relations also act as the head of a meaning unit.

Similarly, relation words that it suffixes also act as head of a word unit. Co-occurrence, the meanings are placed in proximity indicates that they be interrelated and this is also finite in number. This interrelation can be called exclusive sentence meaning namely vākyārtha. This has correspondence with the sentence where words are placed in proximity, which indicates that they are interrelated. And this proximity then can be said to be the exclusive vākya.

To summarize what we have studied so far in the first stage ātmā buddhyā sametyārthān we can say the following. The first stage of speech production involves the overall blueprint we can say of the process of speech production this involves arthākāśa first and then śabdākāśa and there is correspondence between the two śabdākāśa also involves the sentence formation at this stage.

It involves both indivisible as well as divisible aspect of meanings as well as speech that is śabdākāśa as well as arthākāśa and both arthākāśa and śabdākāśa complement each other. Now, we shall study in the next lecture the next stage of speech production namely mano yuñkte vivakṣayā, but before closing this lecture let us follow the practice we have been following of reciting the maṅgalācaraṇa from one of the texts of the Pāṇinian grammatical tradition.

And today we shall recite the maṅgalācaraṇa of ŚabdaKaustubha a celebrated text written by Bhaṭṭojī Dikṣita in the 17th century CE and here is the verse "viśveshaṁ saccidānandaṁ vande'ham yo'khilaṁ jagat, carīkartti barībhartti sañjarīhartti līlayā" I repeat, "viśveshaṁ saccidānandaṁ vande'ham yo'khilaṁ jagat/ carīkartti barībhartti sañjarīhartti līlayā". And let us



study today's 5 sūtras, they are taken from the first sub chapter of the fourth chapter, they are  
nyāpratipādikāt,  
svaujasamautcchaṣṭabhyāmbhisnebhyaṁbhyasnasibhyāmbhyasnasosāmn̄yossup, striyām,  
ajādyataṣṭāp, ṛunnebhyo n̄ip. I repeat, nyāpratipādikāt,  
svaujasamautcchaṣṭabhyāmbhisnebhyaṁbhyasnasibhyāmbhyasnasosāmn̄yossup, striyām,  
ajādyataṣṭāp, ṛunnebhyo n̄ip.

Thank you for your attention.