

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 continue introducing the overall contents of the course and first we try to understand what do we mean by 'Systemic approach' which we shall be focusing on in this course.

There are lists or lexicon which are part of the system of Pāṇinian grammar. These lists, lists of words, lists of lexical items in a language, they form the core part of the grammar, the Pāṇinian grammar. These lists or the lexicon, they are arranged in a particular manner and they are governed by certain principles. These principles and these arrangements are made in such a way that they feed into certain rules, thereby explaining the usage that is part of the language.

Also, these lists of the lexicon is annotated. The items in the lists, they are annotated; these annotations help trigger certain rules. These annotations act as conditions for the rules to apply. Now, with this much background, let us look at the 'Textual approach'. Here is an important list or lexicon called 'Dhātupāṭha', this is a list of verbal roots. 'Dhātu' is verbal root. 'Pāṭha' is the list.

On this slide, there is a screenshot of the first page of the book that is referred to in this course and this page displays the 'Dhātupāṭha' of Paṇini, as ascribed to Pāṇini, 'atha pāṇinīyo dhātupāṭhaḥ' and here is a list of forty-eight verbal roots appearing on this particular page. These are also known as 'bhvādayaḥ', because at the beginning of these forty-eight roots appears the verbal root 'bhū', 'bhū sattāyām'; this is the entry in the list.

There is number one given over here followed by the verbal root 'bhū' followed by its meaning 'sattā'; 'sattā' means existence. The verbal root 'bhū' generally denotes the meaning 'to exist'; this is the meaning of this entry. Now, after this entry of the lexical item, there is some instruction some annotation 'udāttaḥ', 'parasmaibhāṣaḥ'.

Now, this line tells us something about the verbal root 'bhū', an additional information. This annotation triggers certain kinds of rules to apply with respect to the verbal root 'bhū'. Let us try to understand what this annotation triggers, what it stands for. So, this first word 'udāttaḥ' refers to the vowel in the verbal root 'bhū' and the meta linguistic marking is that it is 'udātta'. What is the meaning of 'udātta' and so on; we shall see it later on.

Right now, just let us understand that 'udātta' is a mark noted on the verbal root 'bhū'. This triggers the operation of addition of augment 'ṭ' after the verbal root 'bhū' as part of certain kinds of suffixes which are known in the Pāṇinian grammatical tradition as 'ārdhadhātuka' suffixes.

For participle suffix 'ta' after the verbal root 'bhū', 'bhū' plus 'ta', there is no augment, but in some other cases, this augment will come. Now, the word 'parasmaibhāṣaḥ' in this list, 'parasmaibhāṣaḥ'. So, the word 'udātta' triggers the operation of the addition of the augment 'ṭ' after the verbal root 'bhū' as part of some suffixes.

When we derive the verbal forms of the verbal root 'bhū' which denote the future tends like 'bhavitā' or 'bhaviṣyati', the augment 'ṭ' which is added after 'bhū' that is triggered by this word 'udātta'. Now, the next word is 'parasmaibhāṣaḥ'. This word triggers the operation, namely that a certain set of suffixes only are to be added after the verbal root 'bhū', which are otherwise known as 'parasmaipada' suffixes, 'ti', 'taḥ', 'anti', 'si', 'thaḥ', 'tha' and 'mi', 'vaḥ', 'maḥ'.

So, we get the forms 'bhavati', 'bhavataḥ', 'bhavanti', 'bhavasi', 'bhavathaḥ', 'bhavatha', 'bhavāmi', 'bhavāvaḥ', 'bhavāmaḥ' as against 'bhavate', 'bhavate', 'bhavante', these are not what are actually used in the language. So, the word 'parasmaibhāṣaḥ' over here indicates that only 'ti', 'taḥ', 'anti' are added after the verbal root 'bhū' and not 'te', 'ite', 'ante'. This is how this list is arranged together with some annotations, some instructions. This is how the 'Dhātupāṭha' is arranged.

Next, we come to the list of nominal roots also known as 'gaṇapāṭha' and here you have one more screenshot explaining some examples of 'gaṇas'. For example, 'atha gaṇapāṭhaḥ prathamodhyāyāḥ' and here are two examples of the 'gaṇas' which appear in the first chapter. The first one is 'sarvādīni sarvanāmāni'. This 'sūtra' appears at this number in the text 'Vaiyākaraṇa-siddhānta-kaumidī' and the 'Aṣṭādhyāyī' number is 1127.

And here there are some 35 words listed in this 'gaṇa' and the 'sūtra' says that the words in this 'gaṇa', 35 words, they are to be termed as 'sarvanāma', pronouns.

These 35 words are 'sarva', 'viśva', 'ubha', 'ubhaya', 'ḍatar', 'ḍatama', 'anya', 'anyatara', 'itara', 'tvat', 'tva', 'nema', 'sama', 'sima', 'pūrvaparāvaradakṣiṇottaraparādharāṇi vyavasthāyāmasamjñāyām', 'svamajñātīdhanākhyāyām', 'antaram bahiryogopasankhyānayoh', 'tyad', 'tad', 'yad', 'etad', 'idam', 'adas', 'eka', 'dvi', 'yuṣmad', 'asmad', 'bhavatu', 'kim', 35 words. They trigger some operations in order to generate some specific forms like 'sarve' and 'sarvasmai', 'sarvasmāt', 'sarveṣām' and

'sarvasmin' as against 'rāmāḥ', 'rāmāya', 'rāmāt', 'rāmāṅām' and 'rāme'. This is how the list of nominal roots will trigger some operations and, on this page, you also see the second 'gaṇa', namely the 'svarādigaṇa' which is termed as 'avyaya'.

Then we also have the meta rules known as 'paribhāṣāpāṭh'. On this screen short you have a list of thirty meta rules stated on this page and this 'paribhāṣāpāṭh' begins with the 'vyākhyānato viśeṣapratipattirna hi sandehādalakṣaṇam' and so on. These meta rules help understand the functioning of the overall system of Pāṇini's grammar which takes the input from the lists that we have seen earlier and then the rules that are triggered by those list and then we obviously, apply certain meta rules and then derive the desired output.

We also have an important type of text which is called 'Śikṣā' text, 'atha pāṇinīyā śikṣā' as you can see on the screenshot. 'Śikṣā' texts are primarily the treatises on phonetics. They describe among other things, the process of speech production which is also shown with some underline on this particular page, which is part of this screenshot, 'ātmā buddhyā sametyārthānmano yuṅkte vivakṣayā, manaḥ kāyāgnimāhanti saḥ prerayati mārutam, mārustūrasicaranmandraṁ janayati svaram' and so on and we shall study these verses in detail later on.

Apart from these lists and these texts which trigger the application of rules, in this course we shall also study certain other supplementary aspects of Pāṇinian grammar. They are listed on this particular slide. The first amongst them is the teaching and learning of Pāṇinian grammar, very important one.

Because we have said that this tradition continues till today and we hope that it will continue also in future. This tradition continued from 500 BCE onwards, primarily as part of an oral tradition, the text being memorized and transmitted from one generation to another orally, then at some point in time it was also written down and it was also part of the written tradition.

In this process, we observe that several scholars, they became part of this tradition, they contributed to the development of Pāṇinian grammatical tradition. We shall take a note of these scholars. It will not be possible to go into the details of the contributions of these scholars in this course; we may do that in the advanced course.

The other important topic that we shall be studying is about the words in modern Indian languages which can be better explained by using Pāṇinian grammar and also the process of derivation of sentences and words. Let us look at these aspects in some more detail in this lecture. So, teaching and learning of Pāṇinian grammar, it continues till today in different styles. The first one is the

traditional 'pāṭhaśālā' style and even in this traditional style there are various schools various ways and of course, the university style and we know that there are separate universities focusing only on the teaching and learning of on Pāṇinian grammar.

There are fifteen known Sanskrit universities in India, the curriculum of whose has Pāṇinian grammar as an integral part. The degrees that are awarded in both these systems are like M.A and Ph.D in the university style as well as for example, 'Vyākaraṇacūḍāmaṇi', 'Vyākaraṇaratna', and so on, in the traditional 'pāṭhaśālā' style.

There are various approaches in the traditional style notable amongst them are 'Kaumudī' style in which the Pāṇinian grammar is taught in the form of rearranged text, rearrangement done by the 'Vaiyākaraṇasiddhāntakaumudī' and then there is another style called 'Kāśikā' style in which the Pāṇinian an grammar is taught and learnt in the sequence in which the 'sūtras' appear in the text of 'Aṣṭādhyāyī'. 'Kāśikā' or 'Kāśikāvṛtt' is a commentary on the text of the 'Aṣṭādhyāyī'. This commentary is the oldest surviving complete commentary on the text of 'Aṣṭādhyāyī' and the current traditional style of teaching and learning of Pāṇinian grammar continues in this way as well.

Along with these we shall study the newly formed method which is termed as 'Pūmḃāī' method which combines the features of both 'Kaumudī' as well as 'Kāśikā'. This will be an important part to know about the current Pāṇinian grammatical tradition.

As far as the oral tradition of the Pāṇinian grammar is concerned we have already said that this text of Pāṇinian grammar was committed to memory primarily, because it is a part of the Vedic lore; it is considered as 'vedāṅga'; it is also considered as the main 'vedāṅga', 'mukhaṃ vyākaraṇaṃ smṛtam' and therefore, Pāṇinian grammar got transmitted from one generation to another and continues to be transmitted even today in the same fashion. There are several features of this particular transmission which we need to study.

Those, those features are methods of memorizing the text of 'Aṣṭādhyāyī'. There are various methods. One of the methods stuck to me by my teacher about which I shall be talking later on is the five 'sūtra' method, five 'sūtras' as a unit. We also note that the current transmission of the Pāṇinian grammatical tradition is marked with the features of both the Vedic tradition as well as a non-Vedic tradition.

Thus, it can be considered as a wonderful confluence of both these traditions. There is another important aspect with this transmission and that is that of a 'puṣpikā', a colophon of a sort in which

a numbers and the 'sūtras', they are interwoven in a wonderful style. We will talk about this later on.

In this oral tradition there is a unique place of 'sūtras' with same shape, for example, 'ātaścopasarg' appears twice in the 'Aṣṭādhyāyī'. First in three-one and then in three-three, the meanings of this 'sūtra' appearing in these two places is different. So, there has to be some precaution that has to be taken in order to remember these 'sūtras' distinctly in these two distinct places. This forms an important feature of the oral tradition of the Pāṇinian grammar.

Then there are scholars who have contributed to the development of Pāṇinian grammar. There are traditional scholars and the lineage of these scholars, these scholars have composed commentaries and sub commentaries on them. For example, the 'Kāśikāvṛtt' which is a commentary has two important sub commentaries known as 'Nyāsa' and 'Padamñjarī'.

These sub commentaries are commented upon by later scholars and we have 'Tantrapradīp' a commentary on the 'Nyāsa' and 'Makaranda' a commentary on the 'Padamñjarī' and the tradition continues. We also note that the text of 'Aṣṭādhyāyī' got rearranged in the course of time from twelfth century CE onwards and reached a refined state in the form of the text called 'Vaiyākaraṇasiddhāntakaumudī' which has dominated the curriculum of the Pāṇinian grammar in tradition as well as university style education.

These scholars develop the Pāṇinian grammatical tradition with their contributions. We shall take a look at the major contributions of these scholars in this course. Apart from the traditional scholars, we also note that there are several modern scholars who have contributed in the development of Pāṇinian grammatical tradition and they have composed their text in English, primarily explaining the Sanskrit text.

There are traditional scholars in modern age who have contributed in terms of text written in Sanskrit, some of them have also composed text in English. They have also contributed in terms of ideas, then there are some modern scholars in modern age who have contributed in English, French, German etcetera. We bow down to all these scholars and acknowledge their contributions in the development of this unique tradition.

Then there are some scholars who have developed some computational systems modeling Pāṇinian grammar. We bow down to even these scholars as their contributions have developed this particular tradition. Then in this course, we shall study the pre-Pāṇinian grammarians, the grammatical activity known to Pāṇinian grammar. The background of this grammatical activity,

namely the Vedic era and of course, the corpus on which the Pāṇinian grammar is built; the corpus from which the Pāṇinian grammar is built, we shall study this aspect as well.

Apart from the Pāṇinian grammar, we also have non - Pāṇinian grammarians who composed their text. There are other systems of Sanskrit grammar pre as well as post Pāṇinian. They are considered as non - Pāṇinian grammars. These are traditional Sanskrit texts and there are some modern texts written in modern languages which can be considered as non - Pāṇinian grammars. They are also very important for a student to understand the importance of the Pāṇinian grammar.

Another important aspect is the words in modern Indian languages and the Pāṇinian grammar, which will be a topic in this particular course. We must realize that Sanskrit is considered to be a historical stage of many of the current Indian languages. As an effect we see that lots of words in the modern Indian languages are borrowed directly from Sanskrit.

There are some other words which are borrowed with some modifications and so on with the phenomena like meaning retention, meaning change, happening in the modern Indian languages. So, examples of words in modern Indian languages which can be better explained using Pāṇinian grammar will be a topic of study in this particular course.

We also observe that certain words are coined in the modern era utilizing the generative aspect of Pāṇinian grammar. In this regard, we invoke the articles 344 and 351 of the constitution of India which give directives about the development of vocabulary in Hindi primarily and also modern Indian languages.

Taking inspiration from these articles, the government of India established 'CSTT', the 'Commission for Scientific and Technical Terminology' and this commission has brought out more than 70 volumes of vocabulary to be used in Hindi and the general methodology that is followed in producing this huge amount of vocabulary is based on the generative aspect of the Pāṇinian grammar.

This becomes an important point of study in this particular course. Then we also study the process of derivation of sentences and words, as we shall see the term 'vyākaraṇ' assumes the segmentation and then using these segments, the higher units get derived. So, derivation of words from roots using the rule-based system and then derivation of sentences from those words, once again using the rule based system is an important topic that we shall cover in this course.

We shall also study the principle of compositionality which functions in three levels in the Pāṇinian grammar 'artha', 'śabda' and 'svara'. The Pāṇinian grammar is composed of the 'sūtras', not all 'sūtras' are equal, they do perform different kinds of functions, accordingly there will be different types of 'sūtras'. So, different types of 'sūtras' are composed to meet different requirements of the system.

What is the philosophy behind such formulation? This is the question we shall ask and try to address. In other words what makes one type of 'sūtras' different from the rest and we shall try to address this question with some examples of 'sūtras'. What would be the prospective questions? Say, for example, decode a particular 'sūtra', follow some methodology and decode it.

Then other very important type of question is given some data, analyze it and form on your own rules to explain those data and then tally the rules that you have formed with the rules formed by Pāṇini and try to see what is the difference and try to understand the methodology used by Pāṇini what is important is the conceptual clarity.

I must also introduce a practice that I am going to follow in this course. In every even lecture, I am going to introduce the benedictory verse or the statement also known as 'maṅgalācaraṇa' found at the beginning of celebrated texts in this Pāṇinian grammatical tradition. On this slide we find the very first verse which is generally recited at the beginning of the study of Pāṇinian grammar. I shall recite it for you 'yenākṣarasamāmnāyam adhigamya maheśvarāt, kṛtsnaṁ vyākaraṇaṁ proktaṁ tasmai pāṇinaye namaḥ'. I repeat 'yenākṣarasamāmnāyam adhigamya maheśvarāt, kṛtsnaṁ vyākaraṇaṁ proktaṁ tasmai pāṇinaye namaḥ'.

What this means is salutations are to that Pāṇini the great Pāṇini who after having obtained the initial 14 'sūtras' from Lord Shiva constructed the entire grammar. What these 14 rules or 'sūtras' are we have noted them down in the previous lecture salutations are to that great Pāṇini. This is the 'maṅgalācaraṇa' that is generally recited at the beginning of the study of Pāṇinian grammar and we have also recited it now.

There is another practice that I am going to follow in this course after this 'maṅgalācaraṇa' I am also going to recite five 'sūtras' at the beginning of each 'pāda' or sub chapter in the text of a 'Aṣṭādhyāyī'. And in this lecture, I am going to begin with the first 'pāda' in the first 'adhyāy' and these five 'sūtras' are 'vṛddhirādaic', 'adeṅ guṇaḥ', 'iko guṇavṛddhī', 'na dhātulopa ārdhadhātuke', 'knīti ca'. I repeat 'vṛddhirādaic', 'adeṅ guṇaḥ', 'iko guṇavṛddhī', 'na dhātulopa ārdhadhātuke', 'knīti ca'. We will continue doing this in each even lecture. Here are the references and I thank you for your patience. Thank you.