

Course Name: 'Introduction to Pāṇinian Grammar'
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Week:01
Lecture:01

Welcome, I welcome you all to this course 'Introduction to Pāṇinian Grammar'. My name is Malhar Kulkarni and I teach this course at the Department of Humanities and Social Sciences, IIT Bombay. This is a 4-th year elective course that I offer at IIT Bombay. My email address is mentioned on this slide 'malhar@hss.iitb.ac.in' as well as 'malharku@gmail.com'. Please mark this for any future correspondence.

This is the first lecture of the course and in this lecture, we shall study some general information about this course. What exactly is the aim of the course, what all are the topics that will be covered in this course. What will be the pattern of assignments, the kinds of questions that can be asked that will be asked and so on and so forth. Let us take some more information about the course.

The aim of the course is stated on this particular slide. It is clear from the title of the course itself that the aim of this course is to introduce the Pāṇinian grammar to the students, provide an introduction to Pāṇinian grammar. Thereby, we shall study the approaches, the scholars have taken to study Pāṇinian grammar, there are two approaches, 'Systemic approach' and 'Textual approach'.

The 'Systemic approach' studies the Pāṇinian grammatical system and the 'Textual approach' studies the sources of Pāṇinian grammatical tradition. Both these approaches, they are interlinked and both these approaches need to be studied if we want to understand Pāṇinian grammar better.

In modern world where we are moving towards data science and in new edge, 'cutting edge technologies', understanding language as a phenomenon has become an important task and therefore, it is believed that systems such as Pāṇinian grammatical system, the rules involved in the system the explanation of language given in this system can become path guiding to the researchers.

It is from this point of view that we see that scholars are taking interest in studying Pāṇinian grammatical tradition. Pāṇinian grammatical tradition is studied in the Sanskrit focused institutions as part of their regular curriculum. There are fifteen Sanskrit universities in India and Pāṇinian grammatical tradition is an integral part of the curriculum of these Sanskrit universities.

Apart from these, there are several universities in which Sanskrit language is being taught, literature in Sanskrit is being taught and most of these departments, most of these universities teach Pāṇinian grammar as part of their curriculum. We see that the approach taken in the university system tends to be more a 'Textual approach' in which the text of Pāṇinian grammatical tradition is studied and then there is this 'Systemic approach' which studies the Pāṇinian grammatical system, the linguists and most notably and recently, the computational linguists, they are studying the Pāṇinian system from the point of view of developing a system and that system is that of say, machine translation, language generation and so on and so forth.

The aim of this course is to provide an introduction as far as the Pāṇinian grammatical tradition is concerned and also the Pāṇinian grammatical system is concerned. We take into account both these approaches, the 'Systemic approach' as well as the 'Textual approach' and aim to impart some introductory knowledge with respect to both these approaches.

We stress on the fact that the study of the system of Pāṇini done together with the study of the sources on which this system of Pāṇini is built is more fruitful, as it gives you a direct insight as far as the system is concerned when you look at the texts in which this system is built and therefore, once again I would like to stress the fact that in this course, we aim to introduce both these approaches the 'Textual approach' as well as the 'Systemic approach'.

Let us talk about the 'Systemic approach'. What do we mean by this approach? We study the rules of grammar, when we say that we will study the 'Systemic approach'. The rules of grammar in the Pāṇinian grammatical tradition analyze the linguistic usage which was contemporary to Pāṇini's times as well as before him, both these usages, they are studied and then the rules of grammar, they analyze this usage and from a bigger component, they go to a smaller unit, from that smaller unit, they go analyze further into the further smaller unit. This is the process of analysis. Using the same rules from those smaller units, bigger units can be constructed and using the similar rules from those bigger units, the further bigger units are constructed. This is the 'Synthesis approach' and these bigger units, they are bound in particular structures and also they are part of a particular system. This system needs explanation, needs interpretation and also it needs elaboration. We will try to do these things in this course in an introductory manner. The details can be worked out in advanced level courses as well as specialized studies that can be taken up in future.

Now this system of Pāṇinian grammar relies heavily on the 'Meta language' used in Pāṇinian grammar. So, we shall deal with this very important question, namely what is a 'Meta language', how different it is from an 'Object language'. So, we shall study these two concepts 'Object

language' and 'Meta language' and then what is the 'Meta language' of Pāṇinian grammar and what are its features. Answers to these questions will help us understand the 'Meta language' better, which will help us interpret, decode the rules written in Pāṇinian grammar better and in the more systematic manner.

So, we will spend some time studying this 'Meta language' and one of the most important features of this 'Meta language' is the markers, the sounds that are used as markers which trigger certain kinds of operations. Therefore, this becomes a very important topic that we shall study. Now if we go to the 'Textual approach', we will study parts of the text called 'Aṣṭādhyāyī', mark this word 'Aṣṭādhyāyī', this is the name of the famous grammar of Sanskrit composed by Pāṇini around 350 to 500 BCE.

What is the meaning of the name of the text 'Aṣṭādhyāyī'? It has got two components 'aṣṭa' and 'adhyāy', 'aṣṭa' means eight and 'adhyāy' means chapter. What it primarily means is a text with eight chapters that is how the meaning of the name of the text is derived, a text with eight chapters. Each chapter has four sub chapters. Each sub chapter is called 'pāda' in Sanskrit and therefore, we can say that there are thirty two sub chapters; each sub chapter contains the rules also known as 'sūtra'. Thus, if we count we find that there are approximately 4000 sūtras, 4000 rules of grammar.

These rules will be constantly referred to in this course. So, it is important for us to be familiarized with the reference, with the numbering scheme that will be used to refer to these rules. For example 1.1.1, if you get this reference, what it means is that the first '1', in fact, there are three '1s'. The first '1' refers to the chapter or 'adhyāy' and there are eight chapters. So, in this case the first '1' is referring to the first chapter amongst the eight chapters. The second '1' refers to the sub chapter, the 'pāda', this number cannot be beyond four. So, this is the first 'pāda' amongst the four 'pādas' in the first 'adhyāy' and the third '1' refers to the rule or the 'sūtra', this could be 'n' number and right now we are referring to the first rule from amongst those 'n'. So, for example, if we are looking at 1.4.100, what we are actually studying is the first chapter, fourth sub chapter and one hundredth rule, if we refer to 2.3.70, what we are referring to is the second chapter, third sub chapter and the seventieth rule, this is what we are referring to.

Coming back to 1.1.1, we are referring to the first 'adhyāy', first 'pāda' and the first rule, the very beginning, very first rule of 'Aṣṭādhyāyī', the Pāṇinian grammar. So, this is how we shall refer to these 'sūtras' which are part of the text 'Aṣṭādhyāyī' in which is based the entire system of Pāṇinian grammar, please note about this system of reference to the rules, this is extremely important.

The biggest sub chapter or biggest 'pāda' in the 'Aṣṭādhyāyī' is 6.1. It contains 223 'sūtras' of various kinds, dealing with different kinds of themes with different natures. Some of them are the meta rules, some of them are the prescription rules, some of them are the 'adhikār' rules and so on and so forth and we shall study these types later on in this course in some detail.

Then we have the smallest sub chapter or 'pāda' which is 2.2.38, 2.2 contains only thirty-eight 'sūtras'. This is the smallest ever sub chapter in the 'Aṣṭādhyāyī'. The biggest chapter or the 'adhyāy' is the sixth chapter with seven hundred and thirty six 'sūtras' in all, in all the four sub chapters and the smallest chapter, obviously, is the second chapter which consists of only two hundred and sixty seven 'sūtras' or rules.

Here is the screenshot of the text of 'Aṣṭādhyāyī'. It is referred to as 'Sūtrapāṭha'. 'Pāṭh' is the collection, 'Pāṭh' is the reading or uttering. So, 'Aṣṭādhyāyī-sūtrapāṭha', the word 'sūtrapāṭha' also gives the angle of oral tradition. These 'sūtras' were part of the recitation, these 'sūtras' and still are part of recitation. These 'sūtras' are memorized and then passed on from one generation to the next and this continued, we believe for at least more than two thousand to two thousand years. This is called 'sūtrapāṭha'.

And here is a screenshot of the 'sūtrapāṭha' for you. On the left hand side, this one, this is the title page printed and published in roman, 'Aṣṭādhyāyī-sūtrapāṭha' of Pāṇini with 'vārtikas', 'gaṇas', 'dhātupāṭh', 'pāṇinīya śikṣa' and 'paribhāṣapāṭha' and same, we have in Devanāgarī, "Aṣṭādhyāyī-sūtrapāṭhaḥ vārtika-gaṇapāṭha-dhātupāṭh-pāṇinīya śikṣa-paribhāṣapāṭha-sahitaḥ". We will explain what all these stand for. Right now, just note that this is how the text is printed and this is the title of that text 'Aṣṭādhyāyī-sūtrapāṭha' and this is how the 'sūtrapāṭha' looks like.

So, in this screenshot, on this page, we see that there are some 'sūtras' which are printed over here, from one to twenty-one in this column and then there are some others on this right hand side. So, one to eighth which are printed on this page and from nine onwards up to twenty-nine printed on this second page, there are two pages, page two and page three over here. You will also notice that at the beginning of each chapter, we find a reference to the name of the chapter this is 'prathmodhyāyah' and 'prathamapādaḥ'.

The reference is made clear and then you number the 'sūtra'. So, 'prathmodhyāyah', 'prathamapādaḥ' and 'prathamam sūtram', 1.1.1 is this, 1.1.2 is this and so on and so forth. The numbers are there to indicate the exact location of the 'sūtra' in the text of 'Aṣṭādhyāyī'. In this particular text, right now, we were referring to the numbers which occur on the left hand side, but it is also observed that there are some numbers which come on the right hand side, sixteen, seventeen, thirty four and so on and so forth.

Right now, we just ignore these numbers, they are also the references, they are the references of the text called 'Vaiyākaraṇa siddhānta kaumudī' about which we shall talk little later. So, these are the references to that text. What these references mean is that in the text of 'Vaiyākaraṇa siddhānta kaumudī' which was composed in the seventeenth century C.E.; this 'sūtra' 1.1.1 appears on this number sixteenth, that text called 'Vaiyākaraṇa siddhānta kaumudī' rearranges this entire text of 'Aṣṭādhyāyī' thematically; according to the themes and within those themes the first theme is the technical terms; so obviously, these two, sixteen and seventeen, they go into that section that first chapter called 'samjñā prakaraṇam', the technical terms in that text and then thirty-four and then the fourth 'sūtra' appears on the number 2656. So, this fourth 'sūtra' in the 'Aṣṭādhyāyī', this when arranged thematically appears in the text of 'Vaiyākaraṇa siddhānta kaumudī' at this number at this very late number.

There are obvious reasons and so the question arises as to why 'Pāṇini' put this 'sūtra' over here and there are answers to these questions textually as well as systematically and this is also an answer which gives an insight about how a particular code is written and what kind of requirements it has, the grammarian, the grammar has in order to enlist different kinds of rules together.

So, we shall study this in detail later on. Right now, it is clear to us what these two numbers stand for. Whenever we refer to 1.1.1, we refer to these left numbers, please do not take into consideration the numbers given on the right hand side, they will be useful to you later on, when you also study the 'Vaiyākaraṇa siddhānta kaumudī'.

As is clear, from this page, page number two over here, you see on the left hand side, there is a reference to the 'adhyāy' and 'pāda', 'a-one' and 'pā-one', 'adhyāy-one', 'pāda-one' followed by a number of small 'sūtra' like texts, these are indeed the 'sūtras'.

As you see at the end there is a remark 'iti pratyāhāra sūtrāṇi'. So, these are fourteen 'sūtras' and they help form the 'pratyāhāras' and we shall study what is a 'pratyahar'. We shall also study how these 'pratyāhāras' get formed in detail. We shall also study what are the principles on which these fourteen 'sūtras' are constructed and how to interpret them. They are also considered as part of the text of 'Aṣṭādhyāyī' and that is why they come at the beginning.

Counting these numbers, we said earlier that the number of 'sūtras' in the text of 'Aṣṭādhyāyī', they are approximately four thousand.

Some scholars omit these fourteen 'sūtras' and the number changes and that is the reason why we are using the word approximately. There are some other reasons also as restated that this text was part of the oral transmission and there were certain devices that were created in order to keep the text intact. But in the course of time this text also became a subject of writing, it was written down in the form of manuscripts. It was commented upon and then in the process, the later commentators added some statements in the text of 'Aṣṭādhyāyī' as is 'sūtras'.

And the further later commentators, they realize this fact and they also noted down and attributed one particular text for doing this, that is a very interesting phenomenon and we have published an article explaining this particular phenomenon. But we shall not deal with it right now, we just note this particular interesting phenomenon and move ahead. So, this is the text of 'Aṣṭādhyāyī'.

And as you see once again over here, in 1.1.27 there are some words that are listed, this is what is the list of words also known as 'gaṇa' which is part of the text of 'Aṣṭādhyāyī'. And then we also see that there are some other glosses which one, one is found below the 'sūtra' nine, these are the 'vārtikas'. So, this is the 'vārtika', this is the 'gaṇa' and so on. So, this is the 'sūtrapāṭha' together with the 'vārtika' and 'gaṇapāṭha' and there will be 'dhātupāṭha' and 'śikṣā' and 'paribhāṣapāṭha' also.

And we have been studying this, this page and the features of this page. So, we said that these are the fourteen 'pratyahārsūtras' and these are the 'sūtras' with left hand side numbers which we will refer to, the right hand side number you ignore. These are the 'gaṇa' members this is the 'gaṇapāṭha', this is the 'vārtika' after nine this is another statement after twenty-nine, all these, they constitute the 'sūtrapāṭha', the text of 'Aṣṭādhyāyī'.

The question is how to decode a 'sūtra' which is at the base, which is the core of the entire system of Pāṇini. So, first of all we find out how many words are present in the 'sūtra', exact number of words in the 'sūtra'. Then we figure out the case endings and their significance in the meta language, what do they stand for in the meta language. Once this is clear, we also find out about the words that are continued from the previous 'sūtras', this is how the 'sūtra' are arranged and that will also answer why 1.1.4 which is otherwise listed as 2656 comes at 1.1.4.

Then we look at the appearance of meta rules which are present which guide us to an extent as to how to interpret the 'sūtra' on account of certain triggers mentioned in the respective 'sūtra'. Then we look at the general conditions which are present for example the meaning conditions, then we arrange the words following all these mechanisms and then we make the meaning of the 'sūtra'. This is how a 'sūtra' or a rule in the 'Aṣṭādhyāyī' gets decoded and we shall study this more in the coming lectures which are part of this course.

Then we will address the question about the significance of the 'sūtra'. What is the meaning of the word 'sūtra' itself? The thread what does it signify? This is an important question that we shall address. What does it tell about the overall methodology of grammar, that one statement is a thread which weaves together forms which are used by speakers in the language in their day today usage.

So, the 'sūtras' by themselves reveal certain fact, certain methodology that is used in this particular grammar and that is very insightful which we shall study later on in this course. This is what generally we aim to do in this particular course, the detailed contents of this course are available on the web page of the course in which we shall also study apart from the meta language, the process of speech production in detail.

Noting down the importance of the cognitive aspect as well as the physical aspect and then the features of sounds thus produced which are considered as the base for the grammatical operations noted down by 'Pāṇini' in his rules. Apart from this we shall study the 'Systemic' as well as the 'Textual' approach and study the Pāṇinian grammar. I thank you for joining this course and I hope you will enjoy this course.

Thank you all.