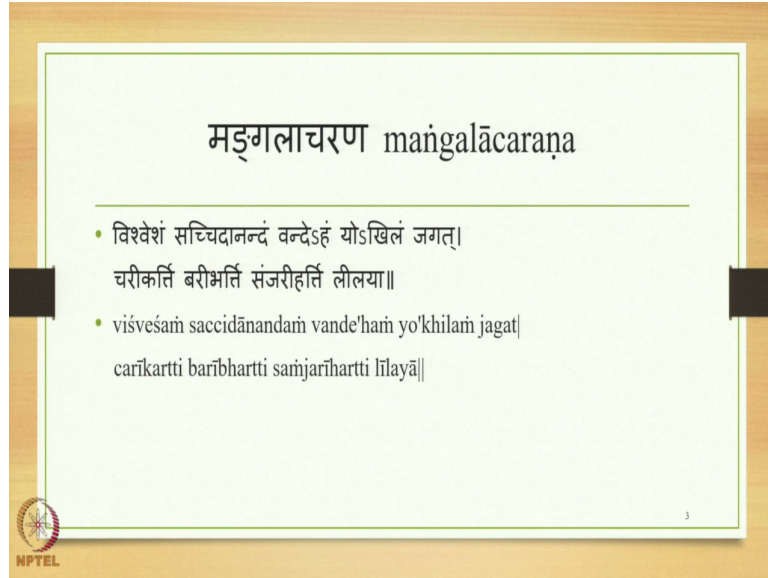


**समास samāsa in Pāṇinian grammar- I**  
**Prof. Malhar Kulkarni**  
**Department of Humanities and Social Sciences**  
**Indian Institute of Technology, Bombay**

**Lecture - 01**  
**Introduction to the contents of the course**

Welcome. I welcome you all to this course Samasa in Paninian grammar-I. My name is Malhar Kulkarni I am a teacher a faculty at the Department of Humanities and Social Sciences IIT, Bombay and I have been learning and teaching for Paninian grammar for more than past 20 years and will be sharing the insights that I have gained in this process about Paninian grammar in this course with the focus of Samasa.

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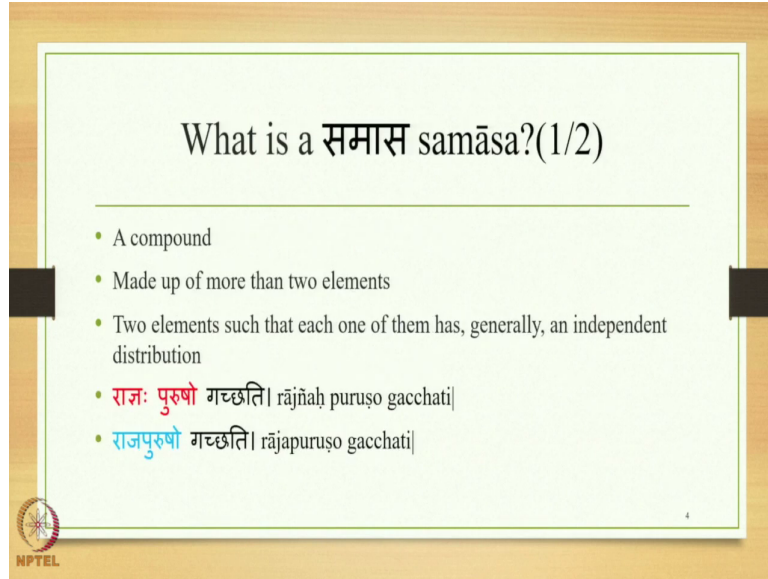
**मङ्गलाचरण maṅgalācaraṇa**

- विश्वेशं सच्चिदानन्दं वन्देऽहं योऽखिलं जगत्।  
चरीकर्ति बरीभर्ति संजरीहर्ति लीलया॥
- viśveśaṁ saccidānandaṁ vande'haṁ yo'khilam jagat|  
carīkartti barībhartti saṁjarīhartti līlayā||

NPTEL 3

We begin with the [FL].

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What is a समास samāsa?(1/2)

- A compound
- Made up of more than two elements
- Two elements such that each one of them has, generally, an independent distribution
- राजः पुरुषो गच्छति। rājñāḥ puruṣo gacchati|
- राजपुरुषो गच्छति। rājapuruṣo gacchati|

NPTEL

4

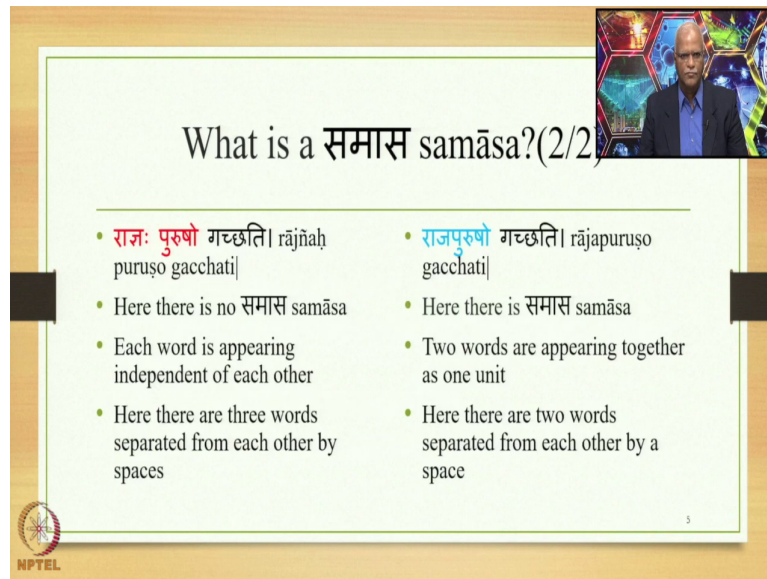
In this first lecture we will take a look at the overall contents of this particular course. The title of the course is Samasa in Paninian grammar and I. So, the next obvious question is what is a samasa and we shall deal with this question in a brief manner over here. What is a samasa? The brief answer is a compound. A compound is called samasa what is the characteristics of a compound?

The main characteristics of the compound is that it is made up of more than two elements. Two elements such that each one of them has generally an independent distribution I repeat compound is made up of two elements or sometimes even more than two elements two elements such that each one of them has generally an independent distribution and here are the examples.

Rajnah puruso gacchati this is a sentence rajnah puruso gacchati and we notice that there are three words over here this is a sentence having three words eka vakhya with three others and then the same meaning can be also stated by bringing together and rajnahah and purushaha and then we will get rajapuruso gacchati.

So, raja purusha is a compound rajapuruso gacchati is a sentence and two elements in this sentence namely rajnahah and purushaha they come together and they have independent distribution and then they are joined together. Of course, this joining brings about certain changes in the process and this process is very complex at the same time extremely deep and very very interesting and insightful and it is this process that we shall focus on in this particular course [FL] is an example where we have used a compound.

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What is a समास samāsa?(2/2)

- राजः पुरुषो गच्छति। rājñah puruṣo gacchati|
- Here there is no समास samāsa
- Each word is appearing independent of each other
- Here there are three words separated from each other by spaces
- राजपुरुषो गच्छति। rājapuruṣo gacchati|
- Here there is समास samāsa
- Two words are appearing together as one unit
- Here there are two words separated from each other by a space

NPTEL

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So, rajnah puruso gacchati in this particular sentence there is no samasa where each word is appearing independent of each other rajnah space puruso space and gacchati full stop. So, three words are there, they are separated from each other by spaces and if you look at rajapuruso you will notice that here there is a samasa rajapurusa is the samasa.

There are two words which are appearing together as one unit and then in the sentence there are two words which are separated from each other by a space rajapuruso space gacchati full stop. So, we observe the difference in the first sentence rajnah puruso gacchati there are three words in rajapuruso gacchati there are two words.

Two elements in the sentence they got together they underwent the process of compounding and a compound output was generated in the form of rajapurusa. So, rajapurusa is an example of samasa and the process that played an important role to generate rajapuruso from rajnah purusaha is what is known as samasa. Generally, we call rajapurusa as a samasa.


In fact, its an example of a samasa and there is quite a lot of theoretical implication and also the practical derivation process involved in getting rajapurusa as an output from rajnah puruso gacchati which we shall deal with in this particular course. So, this is what is a samasa.

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### Use of समास samāsa in Languages (1/3)

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<ul style="list-style-type: none"><li>• Vedic language-</li><li>• इन्द्राग्नी indrāgnī</li><li>• मित्रावरुणौ mitrāvaruṇau</li><li>• पथिरक्षी pathirakṣī</li><li>• देवगण devagaṇa</li><li>• स्वयम्भू svayambhū</li></ul>	<ul style="list-style-type: none"><li>• Classical Language</li><li>• वागर्थं vāgarthau</li><li>• प्रत्युत्पन्नमति pratyutpannamati</li><li>• परप्रत्ययनेयबुद्धि parapratyayaneyabuddhi</li><li>• जायाप्रतिग्राहितगन्धमाल्या jāyāpratigrāhitagandhamālyām</li></ul>
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6

We also see that samasa is profusely used in the languages since we are dealing with Paninian grammar which is the grammar of Sanskrit, we may throw a brief glance of the Sanskrit language and the importance of samasa in Sanskrit. So, if we go back to the Vedic language which is considered to be the historical stage of the classical Sanskrit language, we notice that there are several compounds that are used in the vedic language.

In fact, in the Vedas there is also a tendency to explain these compounds. So, we have compounds like indragni or mitravarunau similarly pathiraksi or devagana or svayambhu etcetera. If we look at the classical language we also have compounds like vagarthau and then one trained which is very famous about samasa in classical language is that, the constituents of the compounds their number keeps on increasing and some works in the classical era are famous for such profuse use of samasas in those works.

So, here are some examples vagarthau a very small sized compound and then if you notice now the size of the compound increases, then we have pratyutpannamati then there is further increase in the size where we have the compound parapratyayaneyabuddhi then we have jayapratigrahitagandhamalyam.

So, vagarthau has got two constituents, pratyutpannamati can be said to have four, parapratyayaneyabuddhi can be also said to have five, jayapratigrahitagandhamalyam can also be said to have five. Now, this is a peculiar feature of the classical Sanskrit language.

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Use of समास samāsa in Languages

- Modern Indian Languages
- लोकसभा lokasabhā
- गणराज्य gaṇarājya
- बहुजनहित bahujanahita
- सर्वशिक्षा sarvaśikṣā
- लोकसत्ता lokasattā
- भारतरत्न bhārataratna
- Modern Indian Languages
- विश्वशान्ति viśvasānti
- आकाशवाणी ākāśavāṇī
- करुणानिधि karuṇānidhi
- हरिमन्दिर harimandira
- विद्यालय vidyālaya
- अन्त्योदय antyodaya

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It is also true that the samasas are profusely used in modern Indian languages also. For example, we keep on regularly listening to all these words lokasabha, ganarajya, bahujanahita, sarvasiksa, lokasatta, bharataratna and also visvasanti, akasavani, karunanidhi,

harimandira, vidyalaya, antyodaya there are multiple examples that are found in modern Indian languages of such samasas and many more samasas.

All these examples given on this slide they are primarily the words from Sanskrit, but there are words from those native modern Indian languages which also undergo this process of compounding.

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The slide is titled "Use of समास samāsa in Languages (3/3)". It features a light green background with a white border. The title is centered at the top. Below the title, there are two columns of bullet points. The left column is under the heading "English" and lists: "Check-in, son-in-law, runner-up", "Basketball, greenhouse, headache, earthquake, grandmother,", and "Prime Minister, high school, middle class, post office". The right column is under the heading "German" and lists: "Sonnenblume, Weltanschauung", "Morgenland, Zeitschrift, Mittag, Mittwoch, Flughafen, Hauptbahnhof, Zusammensetzung, Autofahrer,", and "Kraftfahrzeug-Haftpflichtversicherung". In the bottom left corner, there is a small circular logo with the text "NPTEL" below it. In the bottom right corner, there is a small number "8".

Use of समास samāsa in Languages (3/3)

- English
  - Check-in, son-in-law, runner-up
  - Basketball, greenhouse, headache, earthquake, grandmother,
  - Prime Minister, high school, middle class, post office
- German
  - Sonnenblume, Weltanschauung
  - Morgenland, Zeitschrift, Mittag, Mittwoch, Flughafen, Hauptbahnhof, Zusammensetzung, Autofahrer,
  - Kraftfahrzeug-Haftpflichtversicherung

NPTEL 8

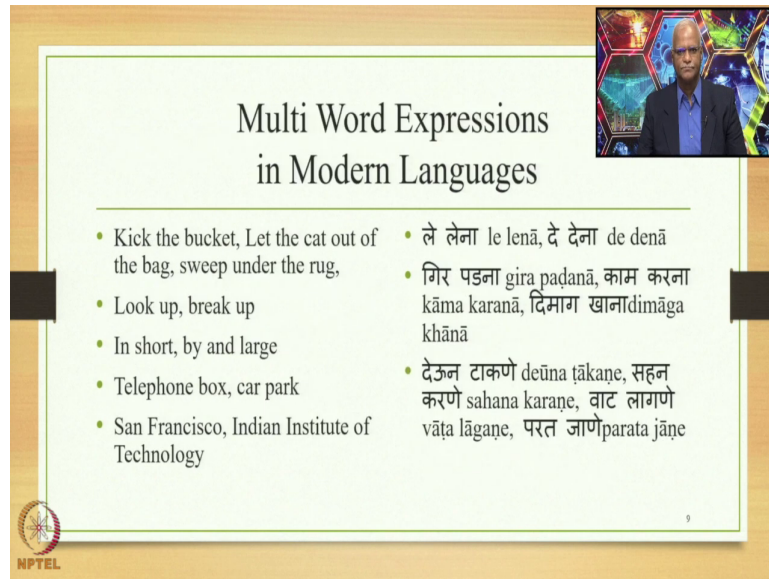
We also see that this phenomena is also present in several languages across the globe and here we are taking only two languages as examples, but there are many languages in which this particular process is found and it is also widely studied. For example, in English you have these three types of compounds where you have the hyphenated compounds like check in or son in law or runner up; then there are basketball greenhouse headache earthquake and grandmother this type of compound where there is only one unit.

And then we have prime minister two words separated, but acting as one unit high school, middle class, post office these are some examples from English. German is also very famous for the use of compound.

In fact, there is a famous statement by a British author Mark Twain who said that German compounds are sometimes so, long that they seem to have a perspective and here are some examples from German Sonnenblume, Welthanschaaung, Morgenland, Zeitschrift, Mittag, Mittwoch, Flughafen, Hauptbahnhof, Zusammensetzung, Autofahrer and this is an example of the very long compound Kraftfahrzeug, Haftpflichtversicherung.

So, the point is that the phenomena of samasa is prevalent in many languages modern languages as well as classical Sanskrit language and also the Vedic language.

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The slide is titled "Multi Word Expressions in Modern Languages" and features a small inset image of a man in a suit. The main content is a list of examples comparing English phrases with their Sanskrit equivalents. The examples are:

- Kick the bucket, Let the cat out of the bag, sweep under the rug, • ले लेना le lenā, दे देना de denā
- Look up, break up • गिर पडना gira paḍanā, काम करना kāma karanā, दिमाग खाना dimāga khānā
- In short, by and large • देऊन टाकणे deūna ṭākāṇe, सहन करणे sahana karaṇe, वाट लागणे vāṭa lāgaṇe, परत जाणे parata jāṇe
- Telephone box, car park
- San Francisco, Indian Institute of Technology

The slide also includes the NPTEL logo in the bottom left corner and a small number '9' in the bottom right corner.

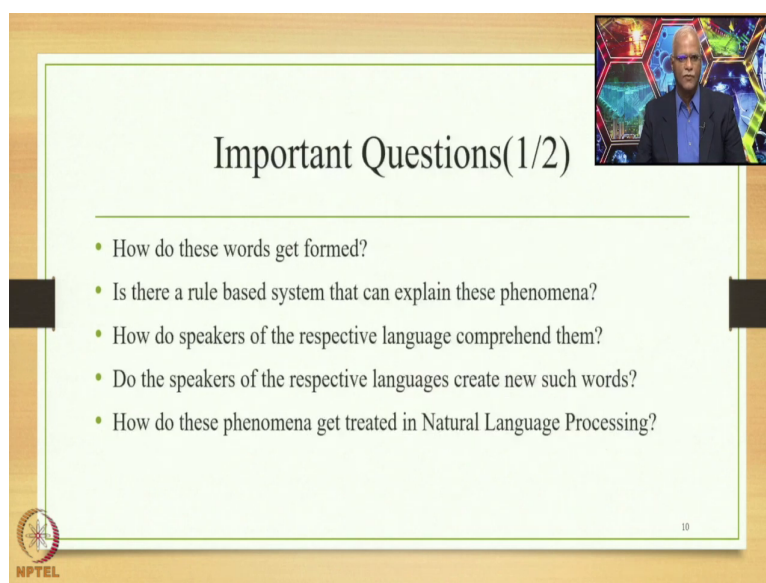


In addition, we also see that there are these multi word expressions which are also part of the modern vocabulary they are part of modern languages. For example, in English we have kick the bucket, let the cat out of the bag or sweep under the rug also we have examples like look up or break up or in short as well as by and large similarly telephone box and car park and finally, the named entities like San Francisco as well as Indian Institute of Technology.

Now, on the right hand side of this particular slide we have examples of what is known as complex predicate. These are the complex words or the compound words in Hindi as well as Marathi. So, le lena, de dena, gira padana, kama karana, dimaga khana these are the examples from Hindi similarly deuna takane, sahana karane, vata lagane, parata jane these are some examples from Marathi.

These are very common in these modern Indian languages and this is a very important task as far as the natural language processing is concerned how to deal with multi word expressions.

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### Important Questions(1/2)

- How do these words get formed?
- Is there a rule based system that can explain these phenomena?
- How do speakers of the respective language comprehend them?
- Do the speakers of the respective languages create new such words?
- How do these phenomena get treated in Natural Language Processing?

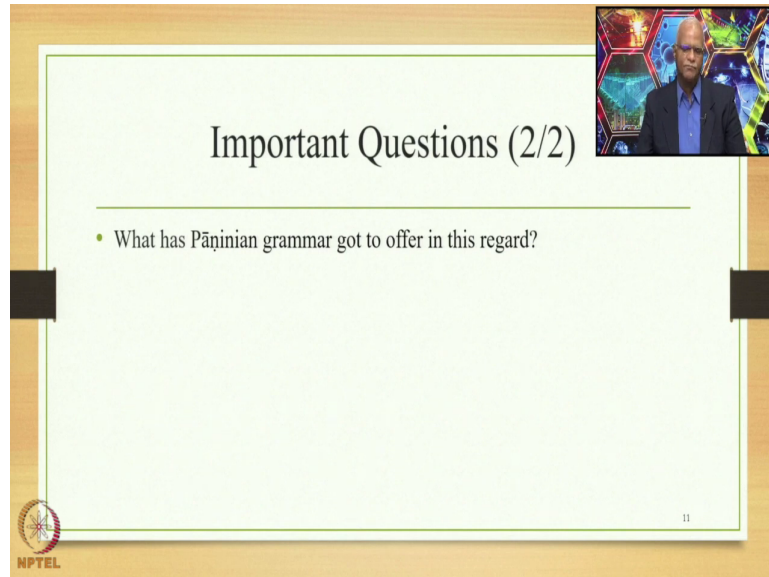
NPTEL 10

Now, why all this is mentioned here is to highlight the fact that the study of the process of compounding is extremely important and would prove insightful in order to deal with these phenomena also available in the modern Indian languages and also in order to prepare the tools in the area of natural language processing. The important questions that need to be asked in relation with this particular phenomenon is, how do these words get formed? Is it a haphazard random process or is there some system?

Is there a rule based system that can explain these phenomena? So, what is the base is the meaning a base can there be some pattern that can be explained how do speakers of the respective language comprehend such samasas also do the speakers of the respective languages create new such words is this process productive to put the same question in the

other words is this process productive enough and then how do these phenomena get treated in natural language processing?

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Important Questions (2/2)

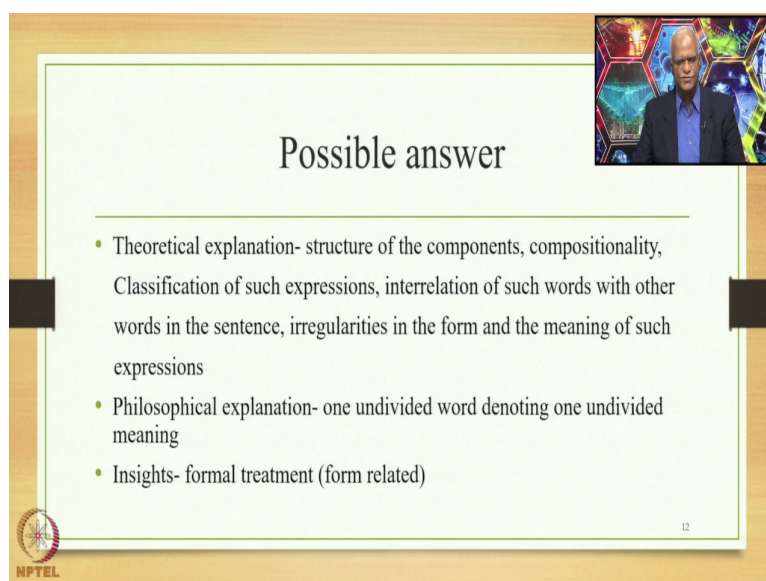
- What has Pāṇinian grammar got to offer in this regard?

NPTEL

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And the most important question in this regard with reference to this particular course would be what has Paninian grammar got to offer in this particular regard? This is a very crucial question. We know that the process of compounding is there in different languages what has Paninian grammar got to offer in this regard? First of all in order to comprehend the process and then in order to develop some tool in order to process these types of words.

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Possible answer

- Theoretical explanation- structure of the components, compositionality, Classification of such expressions, interrelation of such words with other words in the sentence, irregularities in the form and the meaning of such expressions
- Philosophical explanation- one undivided word denoting one undivided meaning
- Insights- formal treatment (form related)

NPTEL 12

The possible answer to this final question is that the Paninian grammar can definitely offer some theoretical explanation. For example, with reference to the structure of the components as well as the compositionality that is how the constituents are stitched together in order to bring about a compound output.

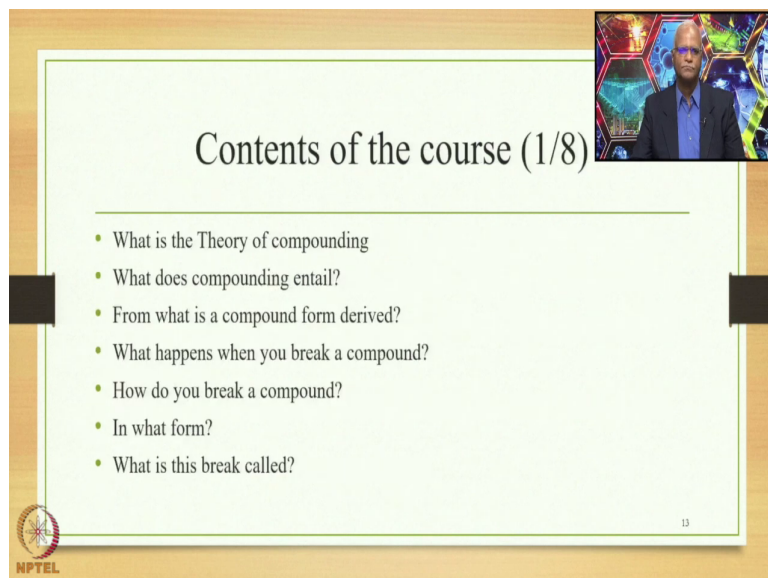
Then classification of such expressions how do we classify them? Interrelation of such words with other words in the sentence how does a compound work or behave in the sentence? What is the parts of speech of compounds etcetera and irregularities in the form and also the meaning of such expressions? Paninian grammar can certainly provide the theoretical explanation in all these areas.

Also the philosophical explanation can be provided by the study of Paninian grammar which says that samasa is one undivided word denoting one undivided meaning the fact that you

find constituents in it and the fact that you also construct a derivation system to get the output in the form of a compound from certain elements is alright as an exercise, but philosophically ultimately it is only one undivided word denoting one undivided meaning that has got quite a lot of significance as far as the explanation of this particular phenomenon is concerned.

Also formal treatment that is form related treatment which is given in the Paninian grammar of this particular phenomenon can provide quite a lot of insights into the tools that can be developed and also in the understanding that we can have of the samasas and probably the productivity and the capacity to produce new compounds in modern Indian languages. The generativeness of this particular process can be better understood with insights by the study of Paninian grammar.

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Contents of the course (1/8)

- What is the Theory of compounding
- What does compounding entail?
- From what is a compound form derived?
- What happens when you break a compound?
- How do you break a compound?
- In what form?
- What is this break called?

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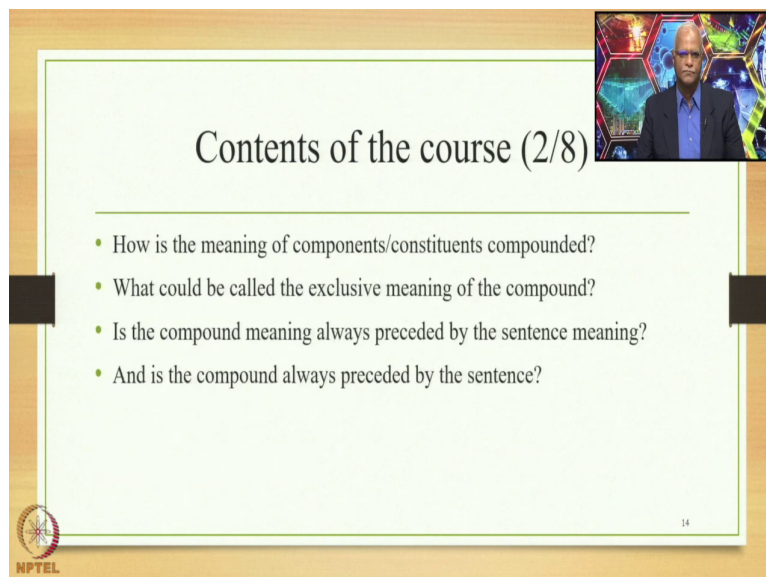
13

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So, what shall we do in the course? We will try to address some of these questions and also we will try to get some more insights from Paninian grammar. So, we will be dealing with these topics what is the theory of compounding? What does compounding entail?

From what is a compound form derived and then what happens when you break a compound? And also how do you break a compound in the first place how do you break a compound and in what form? And what is this break called is there a technical term that is used for it.

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Contents of the course (2/8)

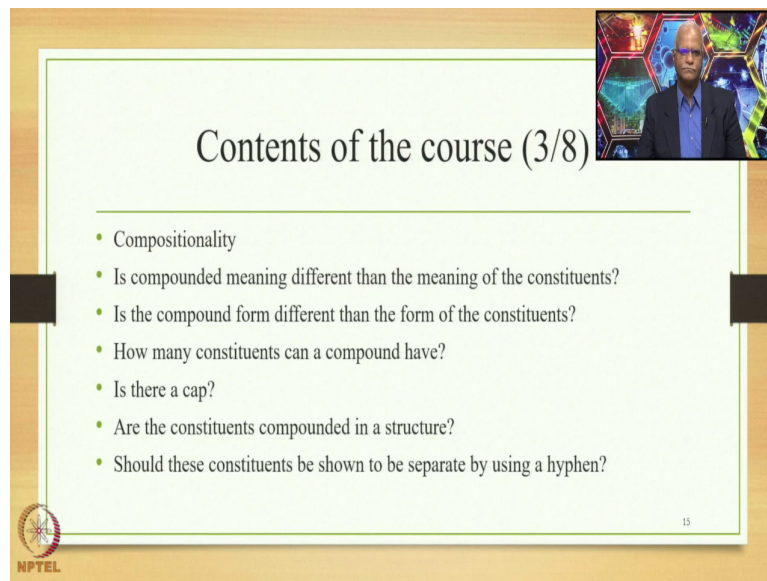
- How is the meaning of components/constituents compounded?
- What could be called the exclusive meaning of the compound?
- Is the compound meaning always preceded by the sentence meaning?
- And is the compound always preceded by the sentence?

NPTEL

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Similarly, how is the meaning of components or constituents compounded is the meaning the base for the formal compounding what could be called the exclusive meaning of the compound? Is the compound meaning always preceded by the sentence meaning? And is the compound always preceded by the sentence?

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The slide features a light green background with a thin green border. In the top right corner, there is a small inset image of a man in a suit. The main title is 'Contents of the course (3/8)'. Below the title is a list of seven bullet points. In the bottom left corner, there is a circular logo with a star and the text 'NPTEL'. In the bottom right corner, the number '15' is visible.

### Contents of the course (3/8)

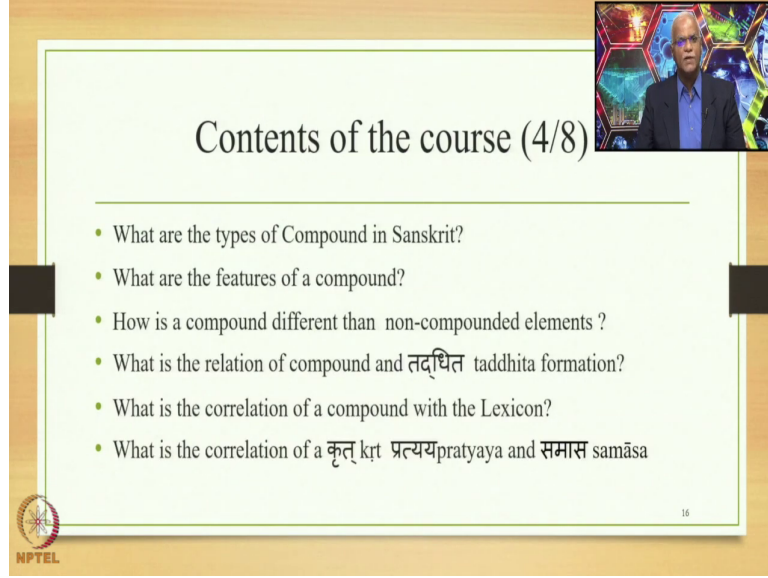
- Compositionality
- Is compounded meaning different than the meaning of the constituents?
- Is the compound form different than the form of the constituents?
- How many constituents can a compound have?
- Is there a cap?
- Are the constituents compounded in a structure?
- Should these constituents be shown to be separate by using a hyphen?

NPTEL 15

Then we move ahead and look at the concept of compositionality. Is compound is compounded meaning different than the meaning of the constituents? And similarly is the compound form different than the form of the constituents? How many constituents can a compound have?

Is there a cap on certain number only this much and not many more? Is there a lower cap as well as a higher calf? Are the constituents compounded in a structured manner? And should these constituents be shown to be separate by using a hyphen?

(Refer Slide Time: 21:26)



Contents of the course (4/8)

- What are the types of Compound in Sanskrit?
- What are the features of a compound?
- How is a compound different than non-compounded elements ?
- What is the relation of compound and तद्धित taddhita formation?
- What is the correlation of a compound with the Lexicon?
- What is the correlation of a कृत् kṛt प्रत्ययpratyaya and समास samāsa

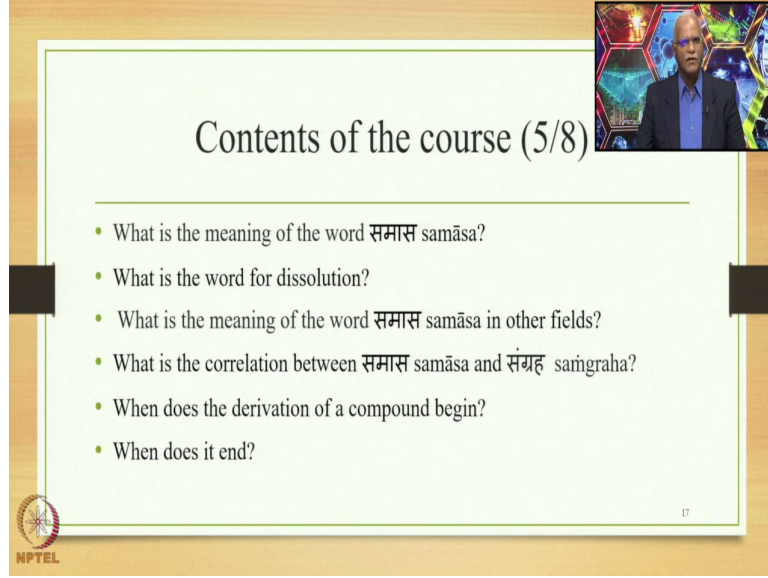
NPTEL 16

What are the types of compound in Sanskrit? The questions that we asked earlier they were of general nature. Now, these are the questions that are very specific to Sanskrit what are the types of compound in Sanskrit and what are the features of a compound? How is a compound different than non compounded elements? So, how is rajapurusa different than rajnah puruso gacchatti? What is the relation of a compound and also the taddhita formation which is a very productive formation in Sanskrit?

What is the correlation of compound with the lexicon? What is the correlation of a krt pratyaya and compound and samasa?



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Contents of the course (5/8)

- What is the meaning of the word समास samāsa?
- What is the word for dissolution?
- What is the meaning of the word समास samāsa in other fields?
- What is the correlation between समास samāsa and संग्रह saṅgraha?
- When does the derivation of a compound begin?
- When does it end?

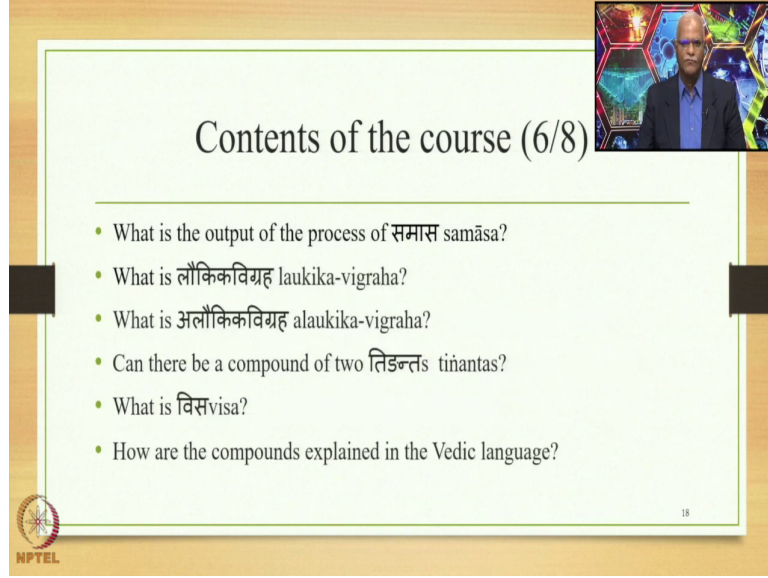
NPTEL

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Coming back to the word samasa, the questions that can be addressed and are addressed in this course are what is the meaning of the word samasa? What does it signify? And what is the technical word for dissolution of the samasa? What is the meaning of the word samasa in other fields.

Because we know that the word samasa is used in several other branches of learning as well even in philosophy. We also notice that [FL] these kinds of usages are prevalent in Sanskrit what do what does the word samasa mean over there? What is the correlation between samasa and sangraha? When does the derivation of a compound begin and when does it end?

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Contents of the course (6/8)

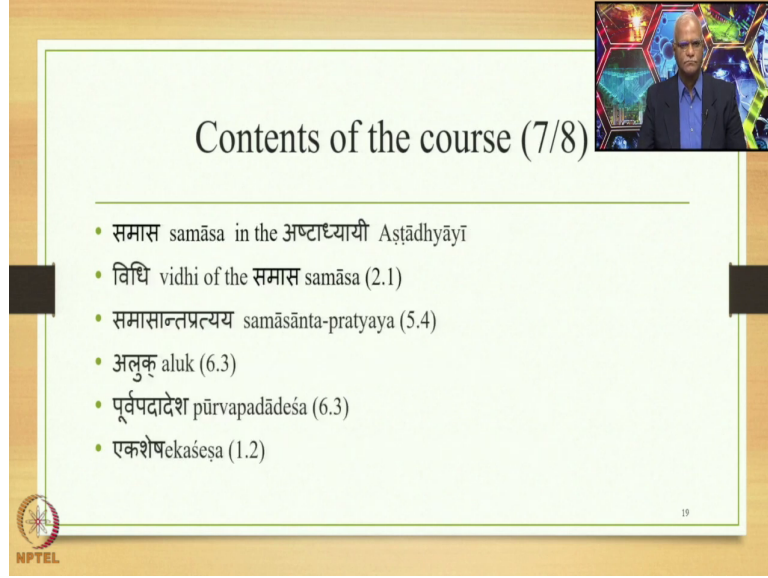
- What is the output of the process of समास samāsa?
- What is लौकिकविग्रह laukika-vigraha?
- What is अलौकिकविग्रह alaukika-vigraha?
- Can there be a compound of two तिङन्तसु tinantas?
- What is विस्रvisa?
- How are the compounds explained in the Vedic language?

NPTEL

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What it means is, what is the output of the process of samasa? Similarly, what is a laukika-vigraha and what is alaukika-vigraha? Can there be a compound of two tinantas? So, what is the basic condition for a compound to take place? What is visa? Remember this is visa and not visa what is visa? Similarly, how are the compounds explained in the Vedic language?

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Contents of the course (7/8)

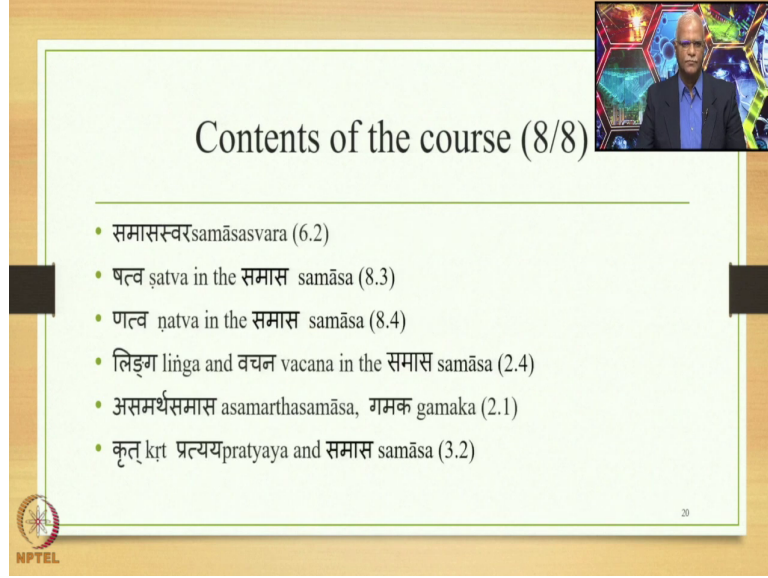
- समास samāsa in the अष्टाध्यायी Aṣṭādhyāyī
- विधि vidhi of the समास samāsa (2.1)
- समासान्तप्रत्यय samāsānta-pratyaya (5.4)
- अलुक् aluk (6.3)
- पूर्वपदादेश pūrvapadādeśa (6.3)
- एकशेषekaśeṣa (1.2)

NPTEL

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Coming to the specifics of the treatment of samasa in Paninian grammar we will also highlight how it is treated in Ashtadhyayi the grammar of panini. So, there are vidhi rules of samasa stated in 2.1, the samasanta pratyaya the suffixes that are added at the end of a compound they are stated in 5.4, the aluk is stated in 6.3, the purvapadadesa is stated in 6.3, ekasesa is stated in 1.2.

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Contents of the course (8/8)

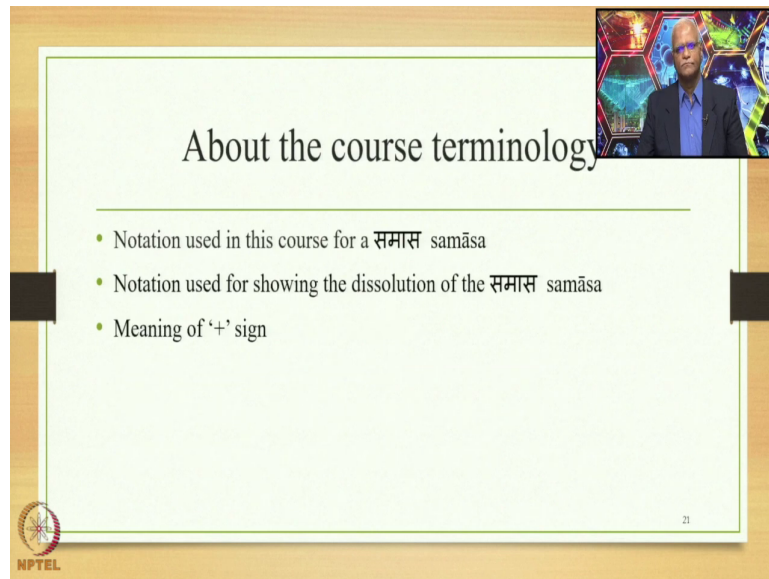
- समासस्वर samāsasvara (6.2)
- षत्व ṣatva in the समास samāsa (8.3)
- णत्व ṇatva in the समास samāsa (8.4)
- लिङ्ग liṅga and वचन vacana in the समास samāsa (2.4)
- असमर्थसमास asamarthasamāsa, गमक gamaka (2.1)
- कृत् kṛt प्रत्यय pratyaya and समास samāsa (3.2)

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Samasasvara is stated in 6.2, satva in the samasa is stated in 8.3, natva in the samasa is stated in 8.4, linga and vachana in the samasa is stated in 2.4, also asamarthasamasa and the concept of gamaka are explained in the mahabhasya on 2.1. And then krt pratyaya and samasa this is stated in 3.2 in the ashtadhyayi. So, these are the overall contents of this particular course. We shall be dealing with these questions we shall be trying to answer them and we shall be also dealing with these topics in the ashtadhyayi.

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About the course terminology

- Notation used in this course for a समास samāsa
- Notation used for showing the dissolution of the समास samāsa
- Meaning of '+' sign


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We will be using some kind of terminology which we shall also explain. Notation used in this course for a samasa that will be explained notation used for showing the dissolution of the samasa will also be explained and also the meaning of the plus sign will be explained.

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**Referred Texts**

- अष्टाध्यायी Aṣṭādhyāyī
- समर्थाह्निक Samarthāhnikā from the व्याकरणमहाभाष्य Vyākaraṇa-Mahābhāṣya
- वाक्यपदीय Vākyapadīya
- काशिकावृत्ति Kāśikāvṛtti
- समासप्रकरण Samāsaprakaraṇa from the वैयाकरणसिद्धान्तकौमुदी Vāyākaraṇa-siddhānta-kaumudī

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These are the texts that will be referred to in this particular course constantly. Ashtadhyayi the grammar of Panini which was composed around 500 BCE approximately, this is the source of the treatment of samasa in Paninian grammar. We will be referring to a chapter in the Vyakarana Mahabhasya constantly while we explain the overall theory of compounding.

Because in this particular (Refer Time: 27:20) which is devoted entirely to this process of compounding there are various aspects that are presented and they are studied thread bare with the pros and cons presented and argued and quite a lot of commentaries also explain this quite elaborately.

We also have modern commentaries written on this particular chapter notable amongst them is the edition and translation with exegetical notes by Professor Shivram Dattatray Joshi

which is published from the University of Pune (Refer Time: 28:08) and that is a very important reference work that we shall be referring to.

Also we will be referring to the text of Vakyapadiya composed by a great scholar called Bharthari around 5th century CE. Vaiyakarna-Mahabhasya was composed around 2nd century BCE then we shall be referring to the text of the Kasikavrtti which is the oldest available complete commentary on the Ashtadhyayi a word to word commentary and this particular important commentary comments on each and every word of the Ashtadhyayi and each and every aspect of the samasa treated in the Ashtadhyayi together with plenty of examples and explanation.

So, we shall be referring to this particular text quite regularly. More importantly we also have a collection of manuscripts of this particular important text of the Kasikavrtti which we shall also take help off we have collected more than 200 manuscripts of this particular text from all over the world thanks to Professor Ivan Karsh and the University of Cambridge then we shall be referring to the samasaprakarana from the Vaiyakarana-siddhanta-kaumudi composed by the great Bhattoji Diksita.

The period for the construction of the Kasikavrtti is considered to be around 7th century CE and Vaiyakarana siddhanta kaumudi around 17th century CE. Vaiyakarana-siddhanta-kaumudi is the text that is currently prevalent for that study of the Vyakarana shastra in the universities and also traditional curriculum.

We will utilize the insights presented in the samasa prakarana by the great Bhattoji Diksita who also authored the Mangalacarana that we recited right at the beginning of this particular lecture and we shall adopt a practice of reciting this particular mangalacarana at the beginning of every subsequent lecture in this particular course.

So, these are the texts that we shall be constantly referring to and will be explaining the process of compounding or samasa in Paninian grammar in this particular course. Since this

is the first course the topics that will be covered will be focused only on the tatpuruṣa compound about which we shall say more in the coming lecture.

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अनुगृहीतो'स्मि

- மிகவும் நன்றி.
- অনেক ধন্যবাদ.
- बहुत बहुत धन्यवाद.
- आभारी आहे.
- ખૂબ ખૂબ આભાર.
- Muchas gracias.
- Merci beaucoup.
- Danke.
- Grazie mille.
- Thank you.

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Thank you very much for your attention [FL].