

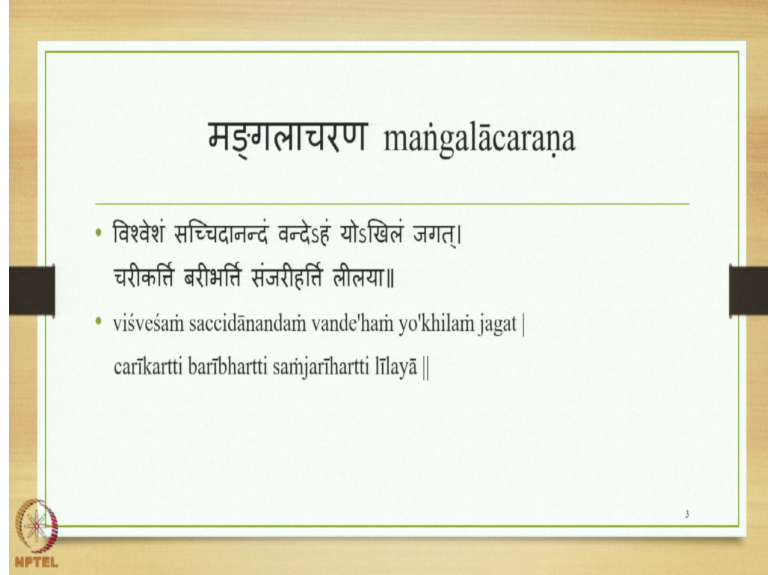
□□□□ samāsa in Pāṇinian grammar- I  
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Lecture - 05

□□□□ samasa and the process of speech production as described in the Paninian grammar

Welcome, I welcome you all to this lecture in the course Samasa in Paninian grammar. We begin with the [FL].

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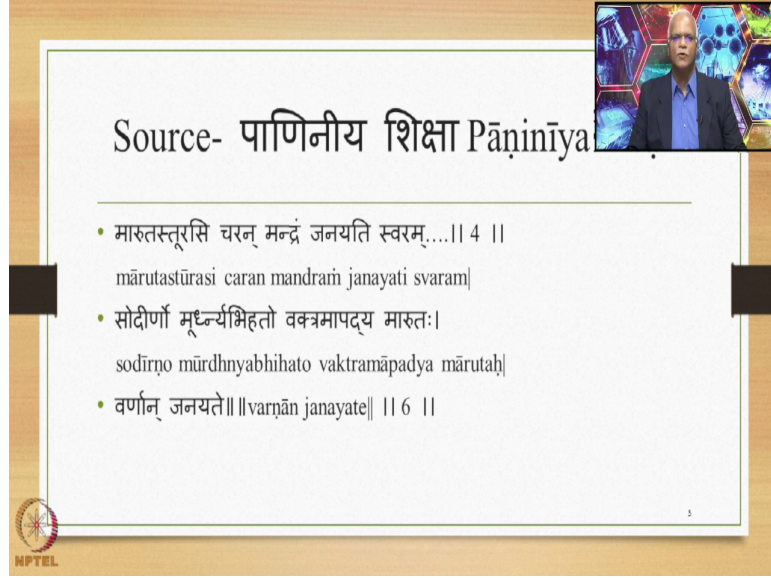
मङ्गलाचरण maṅgalācaraṇa

- विश्वेशं सच्चिदानन्दं वन्देऽहं योऽखिलं जगत्।  
चरीकर्त्ति बरीभर्त्ति संजरीहर्त्ति लीलया॥
- viśveśaṁ saccidānandaṁ vande'haṁ yo'khilam jagat |  
carīkartti barībhartti saṅjarīhartti līlayā ||

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In this lecture we shall study the cognitive explanation of the production or generation of the samasa. We study the source called [FL] which describes the process of speech production according to the Paninian grammar the source of [FL] is the following [FL].

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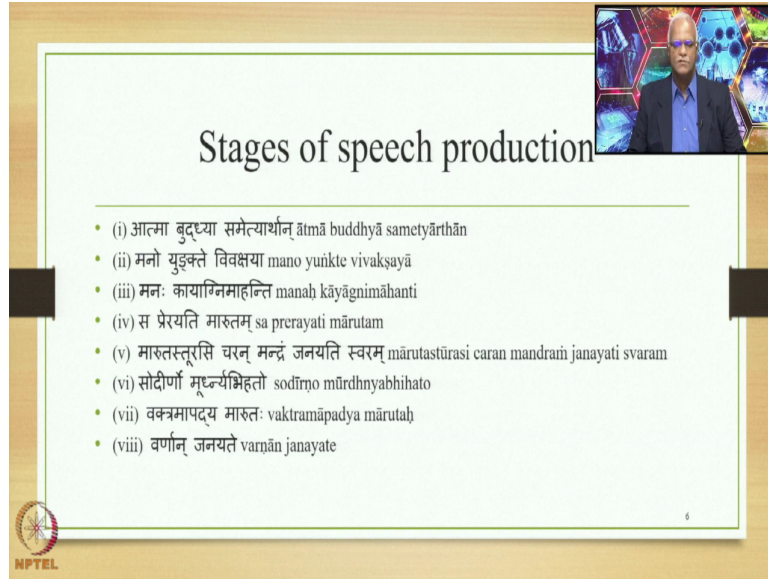


Source- पाणिनीय शिक्षा Pāṇinīya

- मारुतस्तूरसि चरन् मन्द्रं जनयति स्वरम्....॥ 4 ॥  
mārutastūrasī caran mandraṁ janayati svaram|
- सोदीर्णो मूर्धन्यभिहतो वक्त्रमापद्य मारुतः।  
sodīrṇo mūrdhnyabhihato vaktramāpadya mārutah|
- वर्णान् जनयते॥॥varṇān janayate॥ ॥ 6 ॥

NPTEL 5

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### Stages of speech production

- (i) आत्मा बुद्ध्या समेत्यार्थान् ātmā buddhyā sametyārthān
- (ii) मनो युङ्क्ते विवक्षया mano yunkte vivakṣayā
- (iii) मनः कायाग्निमाहन्ति manah kāyāgnimāhanti
- (iv) स प्रेरयति मारुतम् sa prerayati mārutam
- (v) मारुतस्तूरसि चरन् मन्द्रं जनयति स्वरम् mārutastūrasī caran mandraṁ janayati svaram
- (vi) सोदीर्णा मूर्ध्न्यभिहतो sodīrṇo mūrdhnyabhihato
- (vii) वक्त्रमापद्य मारुतः vaktramāpadya mārutaḥ
- (viii) वर्णान् जनयते varṇān janayate

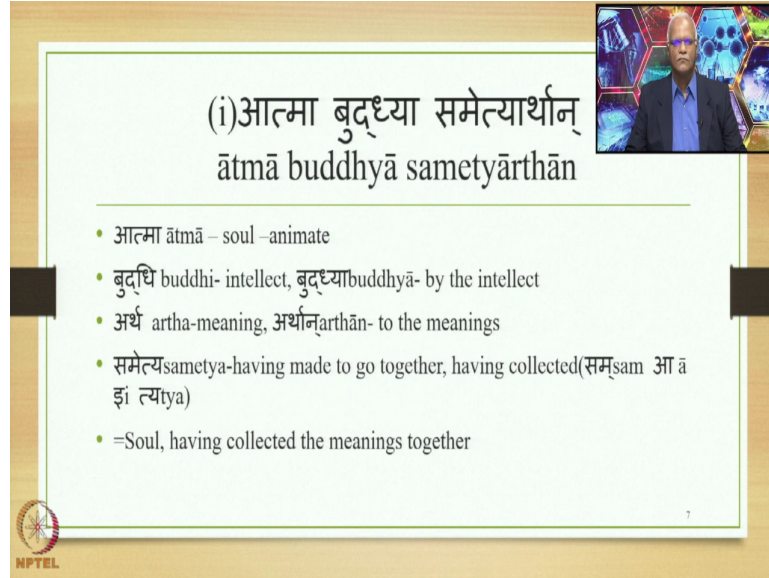
NPTEL

In these verses taken from the [FL] following 8 stages of speech production can be noted down and they are first [FL], 2nd [FL], 3rd [FL], 4th [FL], 5th [FL], 6th [FL], 7th [FL] and 8th [FL]. These are the 8 stages of speech production as stated by the [FL] which we saw earlier. Amongst these the first two namely [FL] and [FL]. [FL] and [FL] these two initial stages they describe the cognitive part of this process of speech production.

And the 3rd stage onwards namely [FL] onwards up to [FL] is the physical process of speech production. And the final output of this particular process of speech production is described in the 8th stage which says [FL]. The audible speech sounds are produced through the oral cavity. So, [FL] the cognitive stage at one end and [FL] the production of the audible speech at the outer other end in these two ends the process of speech production is described.

So, we can say that [FL] is the causal state of the process of speech production and [FL] is the effect of this particular entire process.

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(i) आत्मा बुद्ध्या समेत्यार्थान्  
ātmā buddhyā sametyārthān

- आत्मा ātmā – soul – animate
- बुद्धि buddhi- intellect, बुद्ध्या buddhyā- by the intellect
- अर्थ artha-meaning, अर्थान् arthān- to the meanings
- समेत्य sametya-having made to go together, having collected (सम् sam आ ā इति ityā)
- =Soul, having collected the meanings together

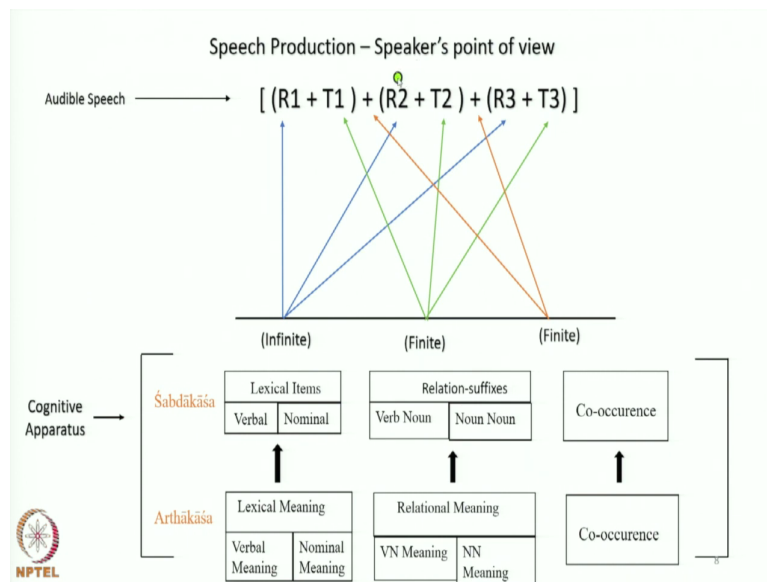
So, let us study these. So, let us study this first very crucial very important stage in little bit of detail. This stages [FL]. In this particular part of the [FL] there are four others four [FL] four words [FL] and [FL]. [FL] is soul [FL] and the essential feature of this is that it is [FL] it is animate. The second word is [FL] which is the instrumental singular of [FL] which is an intellect.

So, [FL] means by the intellect. The next word is [FL] this is an this is a compound of [FL] plus [FL] plus [FL] after having collected together. [FL] plus [FL] and [FL] and the suffix [FL]. So, [FL] means having made to go together literally or having collected. [FL] is meaning and [FL] is the accusative dual of [FL] literally means to the meanings. So, having

put all these meanings together we get the meaning of this particular statement namely soul having collected the meanings together. Starts the next process.

So, in this stage it is assumed that there is a soul and this soul collects the meanings together by the intellect. So, this soul has got intellect as the most effective instrument and with the help of this particular instrument the soul collects the meanings together; obviously, in order to communicate something. And then; obviously, starts the physical process after the [FL] comes in the next stage and then finally, the audible speech is produced.

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This entire process together with the concept of compositionality can be shown in the form of a diagram in this particular manner. This is; obviously, speech production from the point of view of a speaker. So, we are talking about the speech in terms of Sanskrit language which is

produced by a speaker and this can also be generalized to any language with modifications with respect to certain details.

So, this is the cognitive apparatus and cognitive stage. This cognitive apparatus consists of two elements. One is [FL] and the other one is [FL]. This [FL] consists of three kinds of [FL] one are the lexical meaning then the second one is the relational meaning and; obviously, the meaning that is arrived at because of the co occurrence of several meanings.

So, this is all part of [FL]. The lexical meaning is further classified under two headings verbal meaning, action meaning and nominal meaning. The relational meaning is once again classified into two groups broadly the relationship of verb and noun and the relationship of noun and noun.

Now, this [FL] is what is referred to in the line that we studied earlier [FL]. So, these are the meanings that are chosen out of the lexicon and also the lexicon of the relational meanings. And so, we have lexical meaning and relational meaning in place. This is [FL] that is ready now [FL].

Now this also assumes the selection of [FL] in [FL] in correspondence with this [FL]. So, in the [FL] the lexical items get selected. So, in correspondence with the verbal meaning the verbal lexical item will get selected in correspondence with the nominal meaning the nominal lexical item gets selected.

As far as the relational meaning is concerned in correspondence with the verb noun meaning relation the relation suffixes, the words which indicate those relations namely the verb noun relations are selected. And in order to express the in correspondence with the noun noun meaning the noun noun relational suffixes are selected. And; obviously, the co occurrence which generates the additional meanings also is corresponded with the co occurrence of the words placed in combination with one another.

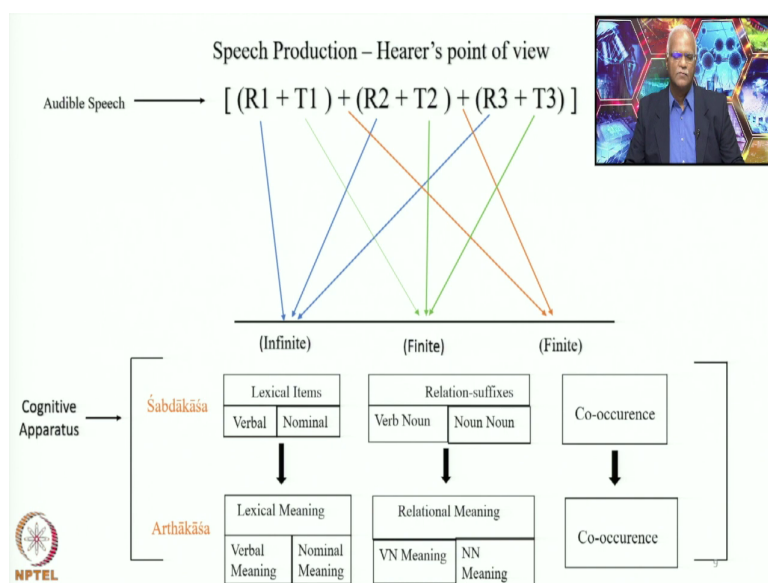
So, this is the stage of [FL] and [FL]. [FL] is the primary stage on the basis of which [FL] comes into play and then the cognitive stage is complete which then gives rise to the physical

process of speech production and then this cognitive apparatus produces the audible speech of this kind. And this speech also has got correspondence with the three items that we noted down in both [FL] and [FL]. So, the lexical items which are infinite in nature they are depicted through the blue lines over here and they are also referred to as R1, R2 and R3.

They always occupy the left hand side position with reference to the plus sign. Then we have the relational suffixes which are shown by green lines and termed as T1. R stands for root, T stands for termination suffix. So, T1, T2 and T3 these are finite in numbers and then we have the co occurrence which is also expressed through finite elements and these are the two plus signs shown in a different color.

So, these are the elements and once the cognitive apparatus through [FL] and [FL] plays an important role and this process is ready the audible speech gets produced this is from the point of view of the speaker.

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Such a produced speech which is audible now generates an effect in the cognitive apparatus of the error and this is the diagram which shows the process of speech production from the hearers point of view.

So, the speech is audible right now and this audible speech goes back to the [FL]. So, the R1, R2 and R3 these three Rs which are infinite correspond to the [FL] which is of lexical items verbal as well as nominal in the cognitive apparatus. And the finite terminations they go to the relation suffixes in the [FL] which is corresponded with the [FL]. And; obviously, the two plus signs which indicate the combination of this particular speech they also are associated with the co occurrence which is part of the [FL].

Now, once this [FL] in the cognitive apparatus is a reason then this [FL] leads to the [FL] to come into a shape in the form of the lexical meaning corresponding with the lexical items in



the [FL]. Relational meaning in the in correspondence with the relation suffixes in the [FL] and of course, the additional meaning that comes into being because of the co occurrence of the meaning which is directly proportionate and corresponding to the co occurrence of the verbal elements in the [FL].

And then this is where the process of speech production as far as hearer's point of view can be ideally said to be complete. So, this [FL] in this case becomes the end point and the audible speech becomes the starting point. In another way we can say that the audible speech becomes the cause and the [FL] and its arising becomes the effect of this particular process. The correlation of [FL] and [FL] in popularly known terms can be shown in the following manner.

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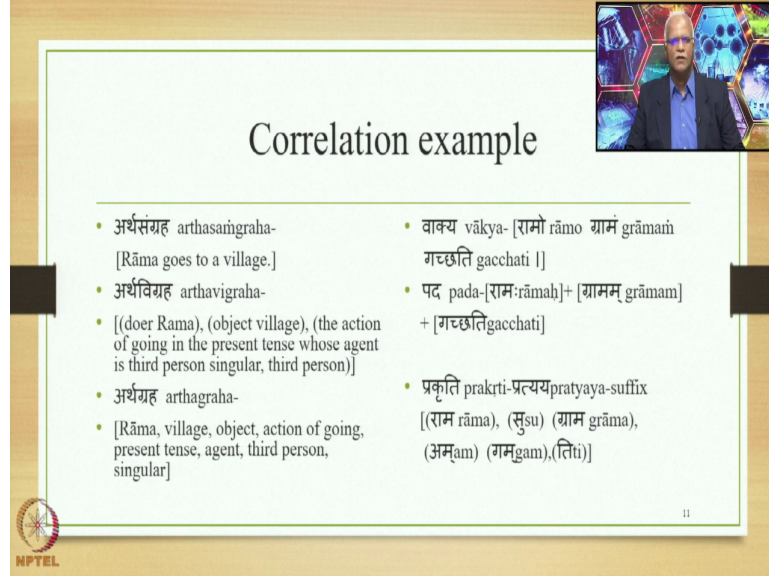
Correlation of अर्थाकाश arthākāśa  
and शब्दाकाश śabdākāśa

- अर्थसंग्रह arthasaṅgraha,
- अर्थविग्रह arthaviṅgraha,
- अर्थग्रह arthagraha
- अर्थग्रह arthagraha
- वाक्य vākya- sentence
- पद pada-word
- प्रकृति prakṛti-roots
- प्रत्ययpratyaya-suffix

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So, [FL] is part of the [FL] and [FL] is what corresponds to it as far as [FL] is concerned. [FL] is part of the [FL] corresponding to it is [FL] which is part of the [FL] and [FL] both these correspond to [FL] and [FL] this is the correlation of [FL] and [FL].

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**Correlation example**

<ul style="list-style-type: none"> <li>• अर्थसंग्रह arthasaṅgraha- [Rāma goes to a village.]</li> <li>• अर्थविग्रह arthavigraha- [(doer Rama), (object village), (the action of going in the present tense whose agent is third person singular, third person)]</li> <li>• अर्थग्रह arthagraha- [Rāma, village, object, action of going, present tense, agent, third person, singular]</li> </ul>	<ul style="list-style-type: none"> <li>• वाक्य vākya- [रामो rāmo ग्रामं grāmaṁ गच्छति gacchati ]</li> <li>• पद pada-[रामःrāmah]+ [ग्रामम् grāmam] + [गच्छतिgacchati]</li> <li>• प्रकृति prakṛti-प्रत्ययpratyaya-suffix [(राम rāma), (सुsu) (ग्राम grāma), (अम्am) (गम्gam),(तिti)]</li> </ul>
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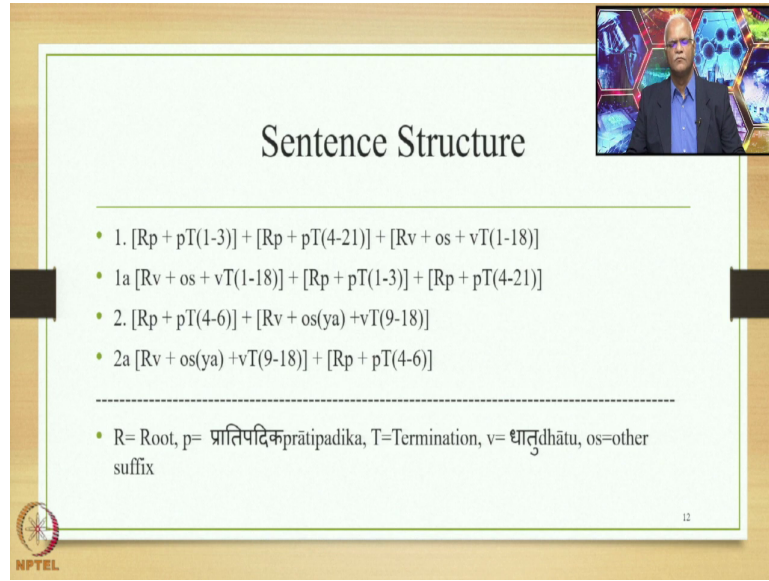
Here are the examples of this particular correlation [FL] is the part of the [FL] where Rama goes to a village is an [FL] is a meaning and this is one unit shown by the brackets. Then this bracket is further divided which is called [FL] and then we have doer Rama as a unit of the [FL] object village another unit of the [FL] and the action of going in the present tense whose agent is third person singular is another [FL].

So, this is the [FL]. And then finally, we get the [FL] in terms of Rama village object action of going present tense agent third person and singular. All these are the parts of the [FL] parts of the [FL]. Correspondingly we have the sentence corresponding to Rama goes to a village

[FL] then corresponding through this [FL] we have the [FL] and [FL]. And corresponding to the [FL] we have [FL] namely [FL] and [FL].

So, this is how the correlation can be explained correlation between the [FL] and the [FL] with a particular example.

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**Sentence Structure**

- 1. [Rp + pT(1-3)] + [Rp + pT(4-21)] + [Rv + os + vT(1-18)]
- 1a [Rv + os + vT(1-18)] + [Rp + pT(1-3)] + [Rp + pT(4-21)]
- 2. [Rp + pT(4-6)] + [Rv + os(ya) + vT(9-18)]
- 2a [Rv + os(ya) + vT(9-18)] + [Rp + pT(4-6)]

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• R= Root, p= प्रातिपदिकprātipadika, T=Termination, v= धातुdhātu, os=other suffix

NPTEL 12

The sentence such the sentence produced thus can be shown in the form of an equation in this particular manner. So, we have Rp plus pT and then there are these three numbers 1 to 3, then we have Rp plus pT 4 to 21 and then of course, we have Rv plus os plus vT 1 to 18.

This is the very basic skeleton of the sentence. This is the sentence structure of Sanskrit where R stands for root p small stands for [FL] which is a nominal root, T capital stands for termination, v small stands for a verbal root [FL], os stands for other suffix.

So, here we have Rp that is a root in the form of a [FL], pT the termination that is added to a [FL] and this has to be the first three elements out of 21, this is part of the first word plus Rp that is a [FL] plus pT the termination added to a [FL] and this is numbered from 4 to 21 and then we should have Rv that is verbal root plus another suffix plus the verbal termination any of the 18 termination 1 to 18.

So, this is part of one structure. Same thing can be said with reference to 1a where the order is changed. So, the same elements within the brackets can be placed in different locations; however, the overall interrelation between the brackets remains intact. So, we can have Rv plus os plus vT 1 to 18 in this location which was occupied by something else earlier and then the rest of follows. So, this is one structure of Sanskrit sentence. The second structure is Rp plus pt and now we have only two words in this sentence.

And the second word; obviously, is Rv plus os and this os has to be [FL] plus vT and only 9 to 18 suffixes are allowed over here. And this can be further explained in 2 a as the order that is changed namely Rv plus os that is [FL] and plus vT that is 9 to 18 and Rp plus pT namely 4 to 6. This is the general skeleton of the Sanskrit sentence structure.


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## Rewritten Sentence Structure

- 1. [Rp(Rv+K)] + pT(1-3)] + [Rp(Rp+Ta)] + pT(4-21)] + [Rv(1-2000) + os + vT(1-18)]
- 1a. [Rv(1-2000) + os + vT(1-18)] + [Rp(Rv+K)] + pT(1-3)] + [Rp(Rp+Ta)] + pT(4-21)]
- 2. [Rp + pT(4-6)] + [Rv + os(ya) + vT(9-18)]
- 2a. [Rv + os(ya) + vT(9-18)] + [Rp + pT(4-6)]

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• R= Root, p= प्रातिपदिक prātipadika, T=Termination, v= धातु dhātu, os=other suffix



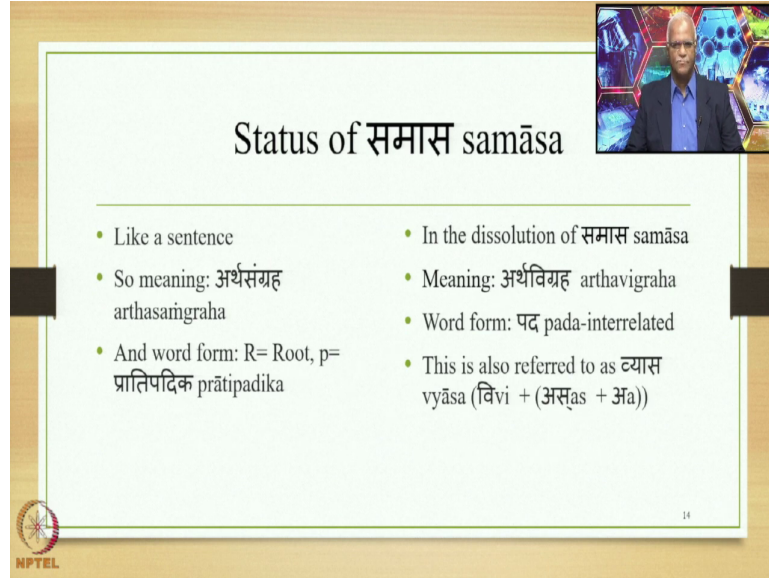
This can be rewritten using several other elements in the following manner. We can also have further derivations involving the [FL] root and we can have Rp which is made up of Rv plus K.

So, verbal root plus a suffix called K that is [FL] plus pT as usual and Rp which is made up of Rp plus Ta termination a and then we also have pT which is what was there earlier plus Rv and there are 2000 verbal roots approximately. So, from 1 to 2000 plus os plus vT and 1a shows the change of location of these elements otherwise it is all though more same. Similarly, we can write the second sentence structure in this particular format Rp plus pT 4 to 6 and then Rv plus os plus vT 9 to 18 and we can also change the order of the words.

This is how the sentence structure can be rewritten. There is one more sentence structure which can be also be written in this particular manner. In the rewritten sentence structure

what we note is that the root [FL] is further derivable and right now we showed that this root [FL] is derived from a verbal root and this root [FL] is derived from a nominal root that is another [FL] after we add a particular suffix to it.

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The slide is titled "Status of समास samāsa". It features a list of six bullet points arranged in two columns. In the top right corner, there is a small video inset showing a man in a blue shirt speaking. In the bottom left corner, there is a logo for NPTEL. The slide number "14" is visible in the bottom right corner.

- Like a sentence
- So meaning: अर्थसंग्रह arthasaṅgraha
- And word form: R= Root, p= प्रतिपदिक prātipadika
- In the dissolution of समास samāsa
- Meaning: अर्थविग्रह arthavigraha
- Word form: पद pada-interrelated
- This is also referred to as व्यास व्यāsa (वि + (अस + आ))

Now, what is the status of a samasa in all this sentence structure? If we go back to the rewritten sentence structure we can say that samasa can come over here where you have Rp plus I am sorry. So, we can say that samasa can come here where you have Rp which is derived from two such Rp plus Ta. Rp plus Ta and Rp plus Tb and that will give you one Rp to which you add another termination to make a further and same thing can apply in all locations this is what is the status of samasa in this particular rewritten sentence structure.

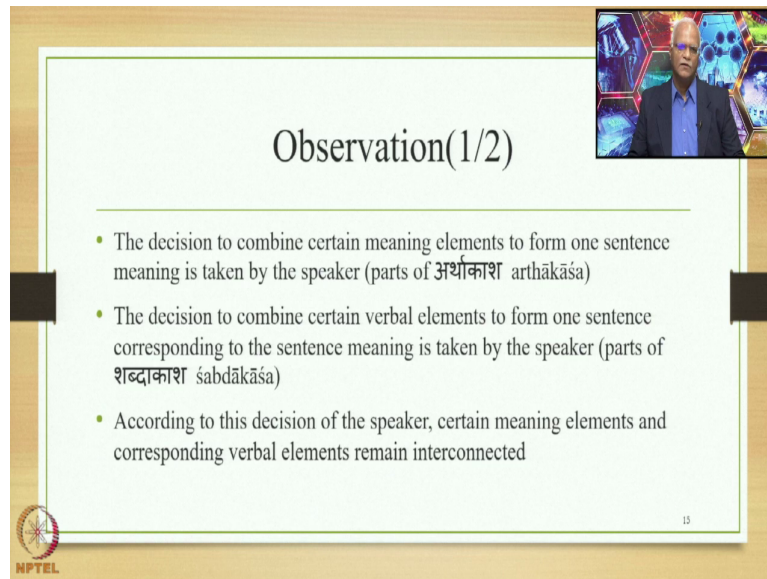
We can in a nutshell say that samasa is like a sentence, samasa is not a sentence it is like a sentence. Why it is like a sentence because the meaning is like [FL] the collection of

meanings, a combination of the [FL] and also the [FL] are the inputs of samasa and [FL] are an input to the [FL]. Similarly, in a sentence [FL] are the input. So, also in [FL] are the input. And of course, the word form root that is the [FL] that is the output where the samasa is different than a sentence.

Now, when we dissolve a samasa we do [FL] and then we go to the stage of the [FL] which are interrelated. So, invariably when we do the [FL] we; obviously, go to the [FL] which are part of the sentence. Now this [FL] is also referred to as [FL]. [FL] is derived by adding the suffix [FL] to the verbal root [FL] with the preverb [FL] indicating the separation or the segregation.

Remember the word samasa is also derived from the verbal root [FL] with the suffix [FL] with the preverb [FL] which indicates the collective throwing whereas, [FL] indicates the throwing which is separate which is independent. That is what is [FL] and that is what is [FL] and that is what is supposed to what is known as samasa.

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The slide is titled "Observation(1/2)" and contains three bullet points. In the top right corner, there is a small video inset showing a man in a suit speaking. The NPTEL logo is in the bottom left corner, and the number "15" is in the bottom right corner of the slide content area.

### Observation(1/2)

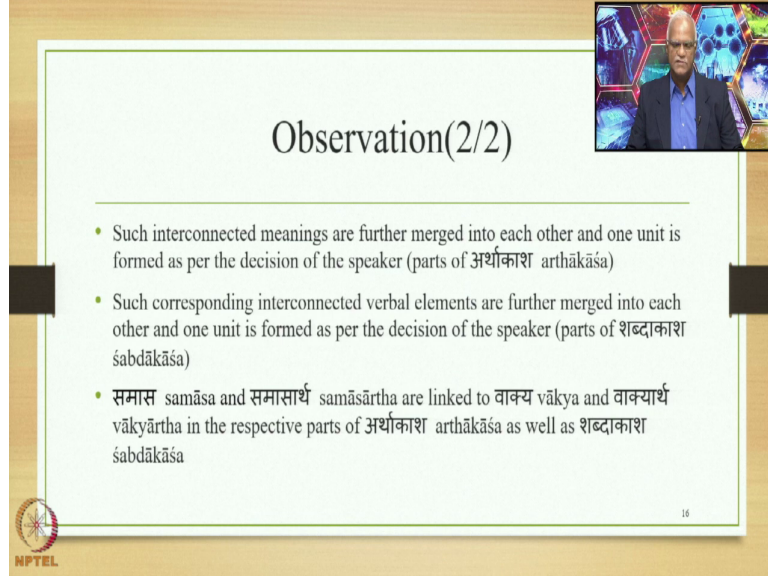
- The decision to combine certain meaning elements to form one sentence meaning is taken by the speaker (parts of अर्थाकाश arthākāśa)
- The decision to combine certain verbal elements to form one sentence corresponding to the sentence meaning is taken by the speaker (parts of शब्दाकाश śabdākāśa)
- According to this decision of the speaker, certain meaning elements and corresponding verbal elements remain interconnected

So, we observe here that the decision to combine certain meaning elements to form one sentence meaning is taken by the speaker of the particular language. Now this decision and the combination of certain meanings this is all part of the [FL]. Corresponding to this [FL] the decision to combine certain verbal elements to form one sentence corresponding to the sentence meaning is further taken by the same speaker this is parts of the [FL] all these verbal elements.

According to this decision of the speaker certain meaning elements and corresponding verbal elements remain interconnected.



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Observation(2/2)

- Such interconnected meanings are further merged into each other and one unit is formed as per the decision of the speaker (parts of अर्थाकाश arthākāśa)
- Such corresponding interconnected verbal elements are further merged into each other and one unit is formed as per the decision of the speaker (parts of शब्दाकाश śabdākāśa)
- समास samāsa and समासार्थ samāsārtha are linked to वाक्य vākya and वाक्यार्थ vāk्यārtha in the respective parts of अर्थाकाश arthākāśa as well as शब्दाकाश śabdākāśa

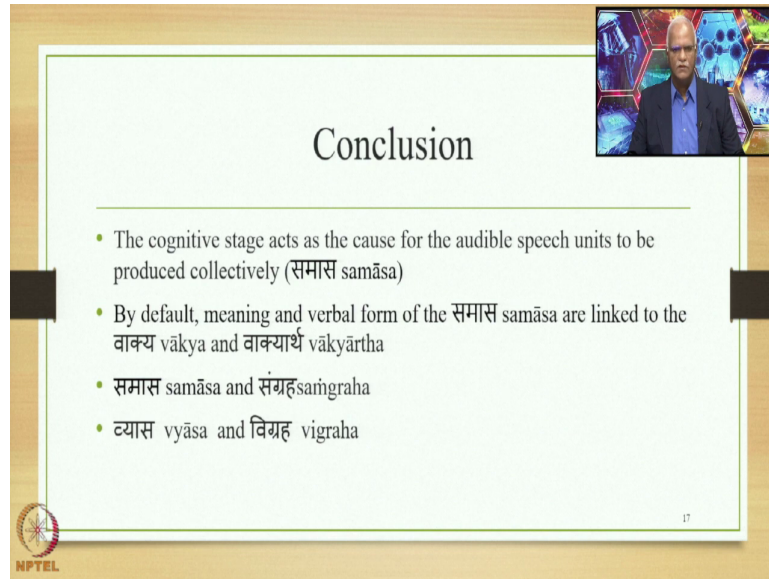
NPTEL

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Such interconnected meaning elements are further merged into each other and one unit is formed as per the decision of the speaker which is also parts of the [FL]. And then such corresponding interconnected verbal elements remember earlier we had interconnected meanings as far as [FL] or [FL] is concerned now we have interconnected verbal elements which are part of the [FL]. So, such corresponding interconnected verbal elements are further merged into each other and one unit is formed as per the decision of the speaker this is part of the [FL].

Samasa and [FL] meaning of the samasa are linked to [FL] and [FL] in the respective parts of [FL] as well as [FL].


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## Conclusion

- The cognitive stage acts as the cause for the audible speech units to be produced collectively (समास samāsa)
- By default, meaning and verbal form of the समास samāsa are linked to the वाक्य vākya and वाक्यार्थ vākyaṛtha
- समास samāsa and संग्रहसंग्रहा
- व्यास vyāsa and विग्रह vighraha

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To conclude we can say that the cognitive stage acts as the cause for the audible speech units to be produced collectively and the process of samasa. By default meaning and verbal form of the samasa are linked to the [FL] and [FL] in the [FL] and the respective [FL] in the [FL]. We also can posit concepts samasa and [FL] as one pair in contrast with [FL] and [FL] as another pair.

We already know the word samasa, we already know the word [FL], we already know the word [FL] what we discovered is the word [FL] corresponding to [FL]. So, [FL] means the separated grasping literally separated cognition and [FL] means collected cognition or collective cognition, [FL] means the separated throwing out that is pronunciation samasa is integrated or collective pronunciation. Samasa and [FL] refer to the verbal part of the process

of speech production whereas, [FL] and [FL] highlight the cognitive part in the process of speech production which captures both meaning as well as the verbal elements.

It is extremely important that we note down these terms samasa and [FL] and [FL]. Samasa and [FL] are very much interlinked and we have been studying the [FL] or the resolution of samasa right from the school days in India. We also come across the term [FL] in the grammatical literature in contrast to samasa. We must note the concept of [FL] in this particular manner which is in contrast with [FL]. This also has got an interlinkage with the general notion of [FL] and [FL] as far as the word and the meaning are concerned stated by [FL] in his magnum opus [FL] where he says [FL].

But we shall talk about this later on. Right now we conclude this lecture by saying that samasa and [FL] and [FL] and [FL] are the terms which can be posit in contrast with one another.

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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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## अनुगृहीतो'स्मि

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• मीळवणं नुसंणी.	• Muchas gracias.
• अनेक धन्यवाद.	• Merci beaucoup.
• बहुत बहुत धन्यवाद.	• Danke.
• आभारी आहे.	• Grazie mille.
• ખૂબ ખૂબ આભાર.	• Thank you.

 NPTEL 19

(Refer Slide Time: 31:02)

अनुगृहीतो'स्मि

- मीकळ्यां ढुंणणी.
- अनेक धन्यवाद.
- बहुत बहुत धन्यवाद.
- आभारी आहे.
- ખૂબ ખૂબ આભાર.
- Muchas gracias.
- Merci beaucoup.
- Danke.
- Grazie mille.
- Thank you.

NPTEL

These are the texts that we are referring and we shall be referring.

Thank you for your patience.