Welcome. I welcome you all to this lecture in the course Introduction to Pāṇinian grammar. In this lecture we continue studying the the concept of Compositionality and how it works as far as the Pāṇinian grammar is concerned. We have said that as far as the speech that is produced as per the description of the Pāṇinīyaśikṣā which we studied earlier this speech is one indivisible unit as far as the process of communication is concerned.

It is the grammarians who by applying the methodology of anvaya and vyatireka as also described and also studied by us described by the VyākaraṇaMahābhāṣya of Patañjali how the components of this one individual speech are carved out and are stored. We also studied how these components can further be segregated into its own components by applying the same technique of anvaya and vyatireka as described in the VyākaraṇaMahābhāṣya which we have studied before.

So, we also stated that this concept of compositionality exists in the Pāṇinian grammatical tradition at 3 levels namely the meaning level the artha level the word level, the śabda level and also the accent level namely the svara level. We have studied how this principle works as far as the artha level is concerned and also the śabda level is concerned.

We also said that both these artha and śabda levels they correspond with each other. The corresponding components at the meaning level in the artha level correspond with the components figured out in the śabda level. We also said that it is this meaning level which is considered as the cause and śabda is interlinked with this meaning level. We are still talking about the so called programming or the linguistic plane which exists in the intellect, we also used the terms arthākāśa and śabdākāśa to describe these phenomena. Now, what remains is the compositionality at the level of svara or accent this is what we shall study in this present lecture. So, the compositionality of svara can be summarized in the following manner as shown on this particular slide.

Though so, the divisions correspond with the divisions that exist at the śabda level and also at the vākya level. So, vākyasvara 1 is made up of three constituents for example, because there are three constituents in the meaning as well as śabda. So, there are three constituents as far as the svara is concerned as well padasvara 1 plus padasvara 2 plus padasvara 3.

And there is this plus sign which is marked in red with some purpose as was discussed earlier in with regards the meaning as well as the word level artha as well as the śabda level the plus sign shown over here is what constitutes the svara of the vākya exclusively, just as the plus sign shown in the similar equation in the meaning explanation also indicated the vākyārtha exclusively and also the vākya exclusively.

So, also this plus sign over here indicates the vākyasvara which is nothing, but the combination of padasvara which are presented over here. So, padasvara is presented by the respective padas, but the svara which comes out as a result of the combination of these padas is what is considered as vākyasvara which is what is shown by the plus sign over here.

This is the general case. So, vākyasvara can be shown have been composed from the svara of the padas and the padasvara in its turn can be shown to have been composed out of the svara, that is assigned to prakṛti and the svara that is assigned to the respective pratyaya which is added to that prakṛti So, padasvara 1 is made up of prakṛtisvara 1 plus pratyayasvara 1 padasvara 2 is made up of prakṛtisvara 2 plus pratyayasvara 2 and padasvara 3 is made up of prakṛtisvara three plus pratyayasvara three.

Once again the plus sign over here is shown in blue ink primarily once again to highlight the same fact that was highlighted at the vākya level namely the padasvara is exclusively the svara of the combination of prakṛtisvara and the pratyayasvara. prakṛtisvara will be marked in a particular manner pratyayasvara will be marked in a particular manner by the rules.

Now when prakṛti and pratyaya they both come together the prakṛtisvara and the pratyayasvara also comes together. And it is this combination which gives rise to a different svara altogether which might sometimes change the prakṛtisvara or the pratyayasvara sometimes it may not change sometimes it may just retain one of the two namely the one that is stated later on and so on.

So, but the point is that it is this plus sign marked in blue which marks the padasvara exclusively. So, this vākyasvara to this vākyasvara the contributions come form prakṛtisvara and pratyayasvara plus their combinations, respective combinations. This is how the svara is described in the Pāṇinian grammar in general. And once again it corresponds with the śabda level as well as the artha level. So, now, let us take the concrete examples to illustrate the point of compositionality in relation to the accent.

When we studied the compositionality of artha and also the śabda we studied the examples in terms of 12 sentences. We classified them into two groups. The first 6 sentences forming the first group

and the second, 6 sentences from 7 to 12 forming the second group. We call them dataset one and dataset two on this slide we have presented to you the dataset one namely the sentences numbered 1 to 6 together with the accent marks and that is why they are shown here as data set 1.1 and.

So, the second data set together with the accent mark will be shown as data set 2.1. Now, here you see that there are some accent marks which are provided notably there is this vertical bar on top of this letter ma on top of the vowel a and also a horizontal bar below this letter rā or ā these are the accent marks. Then there are words like gacchati, which have no symbol no accent mark shown.

So, what is the meaning of these accent marks? We shall study this in a while, but the point is that here is a dataset marked with the accent information this is very crucial. We shall also study that this is a sentential accent when we break down the components of this sentence into the padas or the words we will find different accents. So, we will look at prakṛtisvara as well as the padasvara in a moment.

So, now grāmaṁ gacchati Rāmaḥ is one sentence and then it can be shown to have the constituents in the form of three words grāmaṁ gacchati and Rāmaḥ and so on. And as we know that this dataset consists of certain amount of left hand side elements which are also known as roots which are classified into two once again the nominal root and the verbal root and the right hand side elements which are also classified into two certain elements get attached to the nominal root and certain elements get attached to the verbal root.

So, if we now go to those atoms the linguistic atoms we will note down these accents on those atoms for example, grāma has this accent mark on top of ma, gam has no accent mark Rāma has the vertical the horizontal bar below Rā ma there is no accent mark, śālā has got an accent mark on top of lā Mohana has got two accent marks below the letters mo and ha and na is not accented dṛś is not having any symbol of an accent.

On the right hand side we have pratyayas namely am and this is having a horizontal bar below it a is also having a horizontal bar below ti is also having a horizontal bar and s does not have any accent mark. So, these are the accents that are marked on the prakṛti and the pratyaya by the Pāṇinian grammar and we should study what these symbols mean. We have already seen that there are three accents udātta anudātta and svarit which are the features of vowels.

So, the first thing and the foremost thing is that accent marks are the accents are the features of vowels and they are not the features of consonants. So s over here does not have an accent there is no symbol of an accent, but it does not have an accent why because it is a consonant.

So, each and every vowel can be said to have the quality of getting an accent. Now the point is that as far as the Pāṇinian grammatical tradition is concerned the general system that is followed is the following. The udātta accent and we shall have this these rules studied later on, but for the time being we can say that an udātta is not marked by any symbol and in one particular word there has to be at least one udātta the remaining are anudātta

Now, the anudātta that comes immediately after an udātta is called svarita and is and has this particular symbol the vertical bar on top of the letter. So, in the word grāma it is this ā which is udātta and therefore, it is not marked and this a which is an anudātta which comes immediately after this udātta therefore, it becomes a svarita and gets this sign of a vertical bar on top. This is how the accent on the word grāma can the explained and in fact, there are sūtras also which explain this grāmādināñca and so on.

Next we go to gam and here we observe that there is only one vowel. So, this vowel gets accented this vowel gets the udātta and; obviously, that is why it is not marked.

In the word Rāma this a at the end is marked as udātta without any symbol and this is anudātta so it is marked with the horizontal bar below it. In the word śālā the word śālā consists of the first vowel ā as udātta therefore, this second vowel ā is anudātta but it comes after udātta therefore, it is marked as a svarita marked with the vertical bar on top of it. This is how the accent in śālā can be explained and there is a sūtra also gehārthānāmastrīyām that supports this.

Next we have the word Mohana which is the proper name Mohana and so, by another sūtra phiṣo'nta udāttaḥ this has na as udātta. So, all the vowels that come before it they are shown as anudātta by the horizontal lines below them. Similarly next we have the verbal root dṛś, which is also accented and without any symbol. Accent symbol the verbal root dṛś as well as gam they have udātta by the rule dhātoḥ.

Now we come to the pratyaya. Here is am this is marked as anudātta because this is a sup and all the sups are marked as anudātta. Next we go to a and this is marked as anudātta because this is possessing the it sound p because it is stated as shap in the initial enunciation.

So, this is a pit sound and any pratyaya, which is pit takes an anudātta vowel there is no udātta over here. Same is the case with ti because it is tit so it is tit therefore, it is marked as anudātta and; obviously, s because it is a consonant it cannot have the udātta vowel on it.

So, this is how the Pāṇinian grammar states the accents on the prakṛti and pratyayas in a rule based fashion. Now from them the padasvara is generated. So, we take the word grāma, which has an udātta in the initial position and therefore, this ma has become an anudātta, but it comes after the udātta therefore, it is marked as a svarita followed by this am which is anudātta.

And as we see the resultant form consists of only one a there is an euphonic combination also known as sandhi in which this anudātta and this anudātta they both come together and the resultant accent therefore, also is anudātta. So, this udātta accent retains itself and so, in the word grāmaṁ which is the pada which is a combination of grāma and am the accent of a is retained. So, this a is still udātta and this a is shown as svarit because this is an anudātta, which comes immediately after an udātta vowel. So, this is shown with the vertical bar on top of it this is which is a mark of a svarita.

Next we go to the derivation of the form gacchati in which we see that gam is udātta without any symbol a is with a horizontal bar ti is also anudātta with a horizontal bar. Now, when these are put together because both these two are anudātta and this is udātta.

So this udātta retains itself and so, we get this kind of accent symbol initially and finally, we get this gacchati having this a marked as svarita because it is coming immediately after an udātta in ga. Now, this is also an anudātta but because this anudātta comes after an anudātta which is marked as svarita therefore, this is also unmarked, but this ti and this ga should not be confused, this is udātta, this is not anudātta, this is anudātta.

A

s far as the word Rāmaḥ is concerned it consists of two components Rāma having this a udātta and s without any udātta. So, the joining of these two the combination of these two will give us the word Rāmaḥ where this accent of a on a will be retained. Similarly, in śālām we have śālā marked as initial udātta and am same is the case with grāmaṁ and so, the sandhi the euphonic combination will generate the same accent as grāmaṁ.

So, this initial vowel still is accented.

In Mohana where the last Mohanaḥ where the last vowel is accented in Mohana and s because it is a consonant it is not accented. So, it will retain the accent of a end and then we have Mohanaḥ having the final vowel accented. Similarly, paśyati will have this similar process as gacchati and so, it will have an initial vowel accented which will be then converted into this form where the initial vowel is accented and the rest of them they are anudātta. So the anudātta that comes immediately after udātta will be marked as svarita as shown here. This is how the padasvara as far as this sentence will work and the principle of compositionality will be able to help us in this regard.

Now when we construct the vākyasvara from the this prakṛtisvara and the padasvara here is one example. So, now we have grāmaṁ with the initial udātta gacchati as a separate pada having initial udātta once again and Rāmaḥ as a separate pada having the final vowel udātta this is the status.

When these three words come together in this order grāmaṁ gacchati Rāmaḥ now what happens is, this sentential effect takes place and now this grāmaṁ it retains its accent, but look at gacchati now gacchati will have all the anudātta vowels. This is the sentential effect because gacchati comes immediately after grāmaṁ or any other nominal word. So, then it gets all the anudātta vowels and Rāmaḥ is in the same form. Now, when this gacchati comes in the initial position of the sentence then it retains its own form, see the accent the word gacchati has shown here is similar over here that is why the word gacchati is shown in the red ink on this slide. So, now from this it is clear that when the verb gacchati occurs in the first position it retains its pada accent, which is a combination of the prakṛtipratyaya accent, but when the verbal root gacchati appears in the second position following the word grāmaṁ, then it loses its pada accent and acquires the new sentential accent. This is the sentential accent, this is the vākyasvara as shown in the first sentence over here grāmaṁ gacchati Rāmaḥ.

Now, similar thing can be said with respect to the second dataset 2.1, where we have sentences once again 1 to 6 from 7 to 12 Rāmeṇa grāmo gamyate. Rāmeṇa śālā gamyate and so on and so forth. Once again we have the prakṛtipratyayasvara explained to us in the similar fashion the left hand side is the same now the right hand side is different.

So, here we have ina once again this is a sup therefore, it has got both anudāttas, s because it is a consonant cannot have an accent udātta, ya is accented because of the general rule that the pratyaya are accented in the beginning. te is also accented and now when we join these together we get the following padasvara. So, Rāmeṇa now here is an interesting point here this ma has a udātta accent followed by i an anudātta accent and as a resultant form we see e appearing over here.

Now, this e is a combination of an udātta a and anudātta i so a combination of an udātta and anudātta is always an udātta this is stated by the rules ekādeśe udāttenanudāttaḥ and therefore, this e becomes udātta. Similarly, in other case Mohanena this a is udātta this i is anudātta the resultant form is e which is which is which is an udātta over here.

Now, if we construct once again the sentence accent from these pada accents this is the position that we get Rāmeṇa grāmo gamyate, where the word gamyate which has a middle accent madhya-udātta it loses this udātta accent and then it all of its vowels are termed as anudātta And because they follow this svarita they are unmarked. But they are in fact, anudātta but when this gamyate occupies the first position in the sentence then it retains its own accent once again this is a particular peculiar phenomenon as far as Pāṇinian grammar is concerned as some as far as Sanskrit is

concerned, that a verb retains its accent when it is in the initial position, but if it appears in any other position it loses its accent. This is the sentential feature this happens because of this combination that is part of the sentence.

So, we can make some general rules which mark the accent for example, some of them we have already discussed the accent known as udātta is not marked with any symbol. For example in gam the accent known as anudātta is marked with a horizontal bar below the letter as in ina the accent known as svarita is marked with a vertical bar on top of the letter like Rāmeṇa. The anudāttas which are described as ekaśruti are also unmarked as was the case in the verb which comes at the final position.

Then some other general rules, which can be stated about the compositionality of accent are the following. Each verbal element, prakṛti pratyaya and pada contains at least one udātta remaining all vowels are anudātta very basic principle. The anudātta vowel comes before an udātta is marked with the horizontal bar below. The anudātta vowel that comes after an udātta it is termed as svarita and is marked with the vertical bar above this is also called as paratantrasvarita. The anudātta vowels which come after the paratantrasvarita are termed as ekaśruti and are unmarked as is the case with gamyate because it is a verb and it appears in the non initial position. So, all the vowels are anudātta but because they come after the svarita they are unmarked they are called ekaśruti. The other word used for them is pracaya but when these anudātta ekaśruti vowels are followed by an udātta so if after this gamyate if there is an udātta vowel that comes over here then this te will be marked as anudātta with a horizontal bar below it just as it happens in this case Rāmeṇa just as this ṇa instead of svarita is marked as anudātta. Similarly, this te will be marked as anudātta rather than an ekaśruti. The purpose to do so is to indicate that the next vowel is udātta.

Generally all the verbal roots have their final vowel udātta by the sūtra dhātoḥ 6.1.162. Generally although nominal roots have their final vowel by the sūtra by phiṣo'nta udāttaḥ, phiṭ sūtra 1. Generally all the suffixes have their initial vowel udātta by the sūtra ādyudāttaśca 3.1.3. A verb or a tiṅanta has one udātta only when it appears in the initial position in the sentence or is part of a subordinate clause. Otherwise it does not have one udātta.

To conclude we can say that accent plays a crucial role in the formation of padas as well as vākyas rules transform the prakṛtisvara and the pratyayasvara into the padasvara and the rules transform the padasvaras into a vākyasvara. Order of words is therefore, significant from the point of view of accent in Sanskrit. Even though we have seen that from the point of view of the meaning the order is not important, but from the point of view of accent the order of words is important.

So, we can draw some overall conclusions at this stage at the end of this discussion on compositionality namely that, the principle of compositionality does play a very crucial role in the formation of sentence meaning, sentence and sentence accent in Sanskrit. It is this principle which protects the scientific-ness of the inquiry in general. It is this principle that also allows multiple interpretations of a given text based on multiple possible compositions, but at the level of speech production, comprehension and communication we also need the principle of non compositionality indivisibility. So, compositionality and non-compositionality or indivisibility both go hand in hand in the overall picture related to language and this is what is summed up in the śabdasūtra called sarvasatyavādaḥ siddhāntaḥ.

So, now in the coming lecture we shall take a recap review what we have studied so far and we will explain the future plan of action that we are going to undertake in the subsequent lectures.

Thank you for your attention.