

Sanskrit Lesson 1 – Secret Science behind the Sacred Sanskrit

Let us start this Sanskrit Learning Series by looking at a few popular facts attributed to the Sanskrit Language.

- What makes Sanskrit so different from all other human spoken languages?
- Why is the Sanskrit grammar described to be so scientific, structured and accurate?
- What makes Sanskrit so special that it is called the **Deva Bhasha**, language of the Gods?
- Why is Sanskrit said to be the only human spoken language which is unambiguous and suitable to be used in Computers?
- No loan words in Sanskrit?
- How is it possible that we can frame sentences, write books in Sanskrit such that the same text can have different meaning when read in a different context?
- Why is Sanskrit said to be context sensitive in meaning, context free in grammar, and without any need for evolution?

Preface to learn Sanskrit

In this series on learning Sanskrit, we will first try to understand the greatness of the Sanskrit language, the reason which makes Sanskrit stand apart among all the thousands of human spoken languages. The reason for its beautiful structure, accuracy, great potential and representation of knowledge. But please note that this series is unlike any conventional **Learn Sanskrit** courses. As a preface, you may want to read [Why Sanskrit was considered an important language in ancient India?](#)

The approach followed here would be more like watching a suspense thriller movie rather than a boring documentary. So if you are looking for something like a '**Learn Sanskrit in 5 days**' tutorial or '**Sanskrit for dummies**' quick book, I am afraid this is not for you. My efforts here are so that you appreciate the beauty of this language, and in doing so, learn it as well, slowly but surely.

If you are new to Sanskrit, what is being taught in this lesson here, which is one the core features of Sanskrit alone, will leave you spell bound, for if you do not know Sanskrit yet, you will understand and realize its greatness now and here.

Why Hindu Gods have hundreds or more than thousand names in Sanskrit?

Usually a person has one official name, may be a pen name, some pet names, nick names and so on. So you might be known by at the most 4 or 5 different names. But how about 108 names or even say 1000 names?

If you are a Hindu or know Hinduism closely, you will be aware that in the vedic culture there are deities with just too many names. There are multiple lists of 108 names, 1000 names of Hindu Gods and Goddesses. How can somebody be known by so many different names?

The answer is that each of these names describe different attributes or properties of those Gods or Goddesses. If we take **Ganesha** for instance

God Ganesha and his various attribute based names in Sanskrit

- **Ekadatanta** refers to his attribute of *having one tusk*
- **Gajavadana** refers to his attribute of *having an Elephant face*
- **Mushaka Vaahana** refers to his attribute of *Mouse being his vehicle*
- **Vaktratunda** refers to his attribute of *having a curved trunk*
- **Vigneshwara** refers to his attribute of being the *remover of obstacles* and so on.
- **Ganesha** itself refers to his attribute of being the *Head of Ganas, the semi divine beings.*

If everything refers to his attributes, then what is the real name of Ganesha? Interesting, isn't it? Let's move on.

Single Class – multiple names – a core feature of Sanskrit Language

Another similar interesting aspect you come across in Sanskrit is a thing or a class having multiple names – common names that all refer to the same entity. Take the case of Lotus for instance, **Kamala** is what it is popularly known as in Sanskrit, but also has numerous other names like **Jalaja, Vaarija, Ambuja, Neeraja, Pankaja** and so on. Similarly 'Sea' which is popularly known as **Samudra** in Sanskrit has numerous other names like **Jaladhi, Vaaridhi, Ambudhi, Neereadhi** and so on.

Now if you keenly observe the names of Lotus and Sea given above, they look similar except for the last letter. For Lotus the names end with '**ja**', while for sea they end with '**dhi**'. What do the common terms represent then?

The common terms, **jala, vaari, ambu, neera** all refer to **water**. Each of them define an *attribute of water*, and hence they **represent** water.

Ja in Sanskrit means '*born of*'. So when you add 'ja' to the names referring to water in Sanskrit, you are referring to something that is **born of water**. Lotus being a flower born in water naturally earns all these names. So take any attribute in Sanskrit which represents water, add ja to it, there you have another name for Lotus!

But why am I here referring jala, vaari, ambu, neera etc as **attributes or properties** of water, and not as **names of water**? Aren't they actually the names of water? We will come to that in a moment.

Before that we will look into the names of sea. **dhi** in Sanskrit means **abundance**. Water is abundant in a sea. So you take any name in Sanskrit which refers to the attributes of water, and add a 'dhi' to it. There you have a name for sea!

If you were keen enough to observe the other name of Lotus **Pankaja**, you will see that I didn't mention a similar name for sea, **Pankadhi**. That is because, Panka refers to an attribute of **mud** in Sanskrit, not an attribute of water as you might have expected. Lotus is born in mud and hence also earns the name **Pankaja**. So what is Pankadhi then? Well, if you know something which is abundant in mud, like how a sea is abundant in water, you can call it Pankadhi. You just created a new name in Sanskrit!

What about the names Kamala and Samudra? **Kamala** refers to something that has an attribute of **pale red color**. Since Lotus has this

attribute of being pale red in color, it is also called Kamala. Anything which has this attribute of pale red color can be called Kamala as well.

Samudra refers to an attribute or a property of **gathering of waters**. So any *gathering of waters* can be called *Samudra*, be it a **Sea** or an **Ocean**.

Sam refers to gathering, like in the word *Samsad*. **Udra** again refers to an attribute of water. Sea is a gathering of river waters, Ocean is a gathering of sea waters, hence both Sea and Ocean could be called **Samudra**. Now just think what are **Udraja** and **Udradhi**.

If you are wondering about *Samsad*, **sad** refers to the **act of sitting**. So *Samsad* is *sitting together*, members sit together in the parliament, or for that matter any place where people sit together can be referred to as **Samsad**.

Bonus: What is *Kamalaja*? You should be able to easily make out, it can refer to anything born out of Lotus, because we saw earlier that **Kamala** refers to Lotus and **ja** refers to *born of*. So who is *born of Lotus*? Brahma! which is why he is also called **Kamalaja**. Because he is said to be born of Lotus!

Similarly **KamalaNaabha** refers to Vishnu because Lotus sprouts out of his navel. Naabha refers to an attribute of navel. So **AmbujaNaabha**, **VaarijaNaabha** all refer to Vishnu!

Now we are ready for the great dive into Sanskrit. Before that please note, attribute names themselves do not have a single meaning either. They in turn depend on the attributes of their roots and so on till the very base root. For instance **ambara** can refer to the attribute of Sky or to the attribute of Cloth. So when we say **Shwetambara** we are referring to the *attribute of cloth*, where Shweta means white, so Shwetambara means white cloth or white dress. Even Shukla refers to the attribute of white, so **Shuklambhara** refers to white dress and **Shuklambharadharam** refers to the one who is wearing white cloth. But when *ambara* is used to refer to the attribute of **being limitless**, it refers to **Sky** which is limitless.

Ambara can also refer to other attributes like that of a perfume, saffron, a lip, cipher code and so on. These different attribute names are derived from the roots of the word *ambara* itself! More on these Sanskrit roots in future lessons. Before that...

Sanskrit, all about names of attributes and properties, not of things and objects

There are no names for entities, categories and classes in Sanskrit, its only about referring to them by the names of their attributes or properties. In other words, all names in Sanskrit actually represent knowledge! They tell you something about the entity or class that they are referring to. So if you know ten names of a fruit in Sanskrit, then you know ten different facts about that fruit automatically. Sanskrit itself is knowledge!

While you slowly start digesting this fact, I will explain it further. Let me make it clear again, there are no names in Sanskrit language which refer directly to an object without having to mean anything else related to that object, except for proper names which parents give to their children. In ancient times, even proper names actually referred to an attribute that the child had during birth.

For instance, a girl born on full moon day, might have been named **Poornima** which means full moon. Ashtavakra was called so because he was born with eight (ashta) observable physical handicaps (vakra meaning curve or twist – remember **Vakratunda** ?).

So in Sanskrit, You cannot simply name something as for instance *Farhanitrate* or a procedure as *Prerajulisation*. It has to say something about the entity it refers to.

Or to be more clear, there are no 'fixed' name representations in Sanskrit for Objects. Sanskrit is not a language based on names of objects, unlike other languages. It is purely based on names of attributes. In ancient India even people were given names based on their attributes – proper names indicated attributes as well.

Why Vyasa was also called Krishna Dvaipayana?

Remember ancient Indian history like Mahabharata, Ramayana and Puranas? **Krishna** was called so because of his dark complexion, Krishna refers to an attribute of *having a dark complexion*. But were you ever confused why Veda Vyasa, the author of Mahabharata was also called **Krishna Dvaipayana**. I was confused a lot on this in my childhood. Differentiating between Krishna and Krishna Dvaipayana was an issue for me! Krishna is God Krishna, while Krishna Dvaipayana was the original name of Veda Vyasa, the author of Mahabharata.

Veda Vyas was called Krishna Dvaipayana initially because he had a dark complexion as well and he was born in an island. Dvaipayana means the one who was **born in an island**. In Sanskrit **Dveepa** is an attribute referring to an island. So he was originally called **Krishna Dvaipayana**, while Lord Krishna because of his dark complexion was called **Krishna**.

Krishna Dvaipayana later collected, re arranged and compiled all the veda into the form as we know them today, and hence he was called **Veda Vyasa** or the compiler or differentiator of the Vedas. **Krishna Dvaipayana** was his name by birth, and **Veda Vyasa** was his name based on his achievements. You can refer to anybody who is of a dark complexion and born in an island as **Krishna Dvaipayana**, but there is only one **Veda Vyasa**.

People get more names due to their deeds

As you can see, throughout the ancient Indian history Scholars and Kings were given different names based on their achievements and other later life deeds. Children were usually given names based on their attributes when they were born or in their early childhood, and most of the popular figures in Indian history grew up to earn many different names based on their achievements and based on other incidents in their lives.

Since any thing or a person can have multiple attributes, we find things, Gods, people, all having **multiple names** in Sanskrit based on such attributes. The next time you come across multiple names in Sanskrit for the same thing or person, remember that is because Sanskrit names are not 'fixed' names of objects, but describe their attributes.

In other words, just by knowing the name of something in Sanskrit, you get an idea of one of its attributes, which you cannot get in any other languages we speak. Which is also the reason you find in many Sanskrit verses the same person or object being referred by its many attribute based names to make it clear who or what is actually being referred to. Kesari can refer to Saffron or Lion, but when we say Kesari Gajaari, it definitely is referring to Lion because Gajaari means enemy of elephant and saffron cannot be an enemy of elephant, while Lion is.

In other languages, say English for instance we just have names, and by looking at the name we can't say what we are talking about unless we know it already. Take for instance the name **Lion**, it is just that, a Lion. On the other hand look at the names of Lion in Sanskrit. **Simha, Kesari, Gajaari** all refer to its different attributes like being violent and strong, its body color, it being the enemy of elephants, and so on.

So while in English, Lion is the name of a specific animal, in Sanskrit any attribute of a Lion can be used to refer to it. There is no specific name for a Lion as such – a specific common name. And the same name can also be used to refer to *something else* which also has that attribute. For instance, Kesari can also be used while referring to Saffron which has the same color, like that of Lion. Simha can be used to refer to somebody who is as powerful or violent.

So remember this always, names in Sanskrit do not refer to objects or persons or entities, they refer only to attributes and properties. You cannot simply go and give an arbitrary name to a thing. That is meaningless in Sanskrit. Sanskrit has a science of its own, it is well structured, well defined, you cannot break these rules. More rules in future articles, but something more interesting follows below.

Sanskrit is a Context based Language

Now you should have also understood why meanings of sentences or words in Sanskrit is context sensitive. And why most of the English translations by pundits who did direct word to word translations are so messed up. You should also by now have understood why when you read those mis-translations, they sound so funny, meaningless. If you translate without understanding the rules of Sanskrit, that is not Sanskrit anymore!

For instance, ambara can refer to an attribute of cloth or sky. If a person translates **ambara** as **sky** when it is actually referring to **cloth**, then you have a goof up! A sentence which was intended to mean "Sun in the Sky" ends up being translated as "Sun is in the dress". And our wise intellectuals then start mocking Sanskrit texts as being childish, illogical, so on, all because the translation was wrong!

It doesn't stop here, people can even misinterpret the Sanskrit texts as saying something else while it originally meant something totally different! That is how you end up with all those numerous translations on the Internet of Sanskrit verses being anti-woman, promoting caste system, texts contradicting each other, and so on.

Take for instance the translations making round about people eating beef or killing the cow during the vedic period. The whole basis of this myth is translations of Sanskrit verses like the one which actually means "*control your sense organs*" which was translated as "*kill the cow*", all just because the word used was **go/gau** can refer not only to cow, but also to sense organs, star, light ray, diamond, etc in Sanskrit.

So when taken out of context and translated using its most popular object, you end up with misinterpretations like these. Sanskrit translation can never be done by going word by word, the entire context should be used as the basis to understand the meaning. And there are multiple rules and hints to understand the context of words which we shall learn in the future lessons of this series.

Embedding Secrets and Mystery in Samskrit Sentences

Because of its context based word meanings, one can intelligently frame great malleable sentences in Sanskrit which can be used to represent multiple facts, ideas etc. This is where the beauty of the sentences in Veda and Upanishads come into picture. Simple sentences can be used to represent n number of different ideas and facts. And vedas and Upanishads are full of such innovative beautifully framed sentences. This is also **ONE OF THE** reasons why one can form extremely short sentences in Sanskrit meaning extremely complex things, like the famous mahavakyas (great sentences) in the Upanishads, like *tat tvam asi, aham brahmasmi, ayam atma brahma* etc. Simple they may look, they have enough information hidden in them for one to keep writing books after books on these sentences and the ideas or philosophical and spiritual thoughts they represent.

If you are still not clear, in English when we say ***Sun rises in the East***, we just mean that. Sun is an object, which rises in a direction which we call East. But in Sanskrit we refer to **Sun** not by a name of its own, but by any property representing Sun. Similarly **East** is referred to by some property of that direction, so is **rising** represented by an attribute of the act of rising. So a sentence in Sanskrit which says *Sun rises in the East* can also represent any fact or information that is a combination of these three attributes.

All the core 8800 verses (shlokas) of Mahabharatha are said to be filled with hidden information and secrets embedded in these rare combination of knowledge attributes! It is said that only Vyasa and his son Shuka were completely aware of all the hidden meanings in them, while Sanjaya (who narrated the war to Dhritarashtra) was aware of some of them!

Sanskrit can create New Names , no need of Loan words from other languages

All languages are filled with loan words borrowed from other languages. English itself has too many loan words borrowed from languages across the world. Sanskrit has fed loan words into core English via languages like Greek, Latin, German etc which themselves had taken numerous loan words from Sanskrit. Read this article for the [list of mainstream core English words derived from Sanskrit](#). Even today English continues to import loan words from Sanskrit like Yoga, Guru, Avatar, Maya, Nirvana, Pundit, etc.

On the other hand in Sanskrit because of its attributes based nature there is no need for any loan words. Loan words are only required when you come across something or some knowledge which is new to that language's culture. For instance, Yoga was new to English, became a loan word there. With the advent of Internet and related terminologies, many terms like, 'Download' and 'Upload' were imported into Indian languages. So they have become loan words in our languages.

But in Sanskrit, because of its attribute based nature, you can always create a new word which can then be used to refer to an attribute of that new knowledge or entity! You will never need a loan word which would be meaningless on its own in a language. For instance in mainstream English, **Yoga** has no meaning of its own. In Kannada, or Hindi, the word **Download** has no meaning of its own.

Where as in Sanskrit you never need such imported loan words. Because of its attribute based naming convention, you can always create as many new words you want. In fact the possibilities are infinite, so immense that you can go on creating new words even for existing objects! This is also one of the reasons why there is no need for Sanskrit to evolve unlike other languages. In fact, because of its very nature, if you import a loan word into a Sanskrit sentence, then the very parsing or understanding of Sanskrit becomes very difficult, unless the loan word is explicitly referred to with its meaning.

An Example of creating new words in Sanskrit

*Edit: Since many readers asked about giving a practical example of creating new words in Sanskrit by giving one for **Download**, have updated the article with one for download and upload. The attribute of descending or fetching is **Avataara** in Sanskrit, so one word for Download in Sanskrit could be **Avataarayati** or the act of fetching. **Avaroha** represents the attribute of going down, so Download can also be **Avarohayati***

*Similarly for **Upload** we can call it **Urdhvayati** where **Urdhva** is an attribute representing upwards in Sanskrit. **Aaroha** also represents the*

attribute of ascent or going up and hence Upload can also be called **Aarohayati**

Not only these, you can create any number of words for upload and download in Sanskrit using the attributes representing upward or ascent, and downward, fetching or descent. For instance consider the terms **Unnati** and **Avanati**, which represent progress and downfall respectively. Take the Sanskrit attribute which can represent File, **Patrika**. So File uploading and File downloading could be **Patrikonnati** and **Patrikavanati** respectively! The options are limitless!

Now you also understand why Hindu Gods have chants with 108 names, 1000 names called Ashtotthara, Sahasranaamaavali etc? and why even historic persons like Vyasa, Krishna, Rama, etc have so many names.

Take the case of the names of Lord Shiva. Shiva, Manjunatha, Jagannatha, Vishwanatha, Eeshwara, Ardhanaareeshwara, Mrityunjaya, Mrda, Gangadhara, Shoolapaani, Pashupati, Nagabharana, Nandivaahana, ChandraShekara, and many more all refer to the various attributes of Lord Shiva.

Summary of Sanskrit Lesson 1

- In Sanskrit you **cannot** simply given an arbitrary name to a thing.
- In Sanskrit things and objects do not have names, it is the properties which have names.
- In Sanskrit you name things by referring to their different properties, and hence the same object, person, place, etc can have various different names each referring to a property or an attribute of that object, person, place etc.
- In Sanskrit you don't need loan words, because as we come across new knowledge, new things etc we can simply refer to them based on their attributes and properties.
- You can always create as many new names as you want in Sanskrit as long as they refer to the correct property names.
- Sanskrit is context sensitive in meaning of its words and sentences because the same property can refer to different things, objects, persons, places etc in different contexts.

- In Sanskrit you can create great sentences which reveal multiple information in a single sentence or even in a single word. In other words, entirely different information can overlap within a single word or sentence in Sanskrit. The possibilities for composers, writers, poets to be creative in their composition, writings and poems, to encode secretive information in an ordinary looking sentence are all immense. Sky is the limit for Sanskrit authors.
- And we have only touched the tip of the iceberg, more lessons to follow...
- Sanskrit is not a mere language, it is a science in itself and an ocean of knowledge. **Sanskrit** itself refers to an attribute which means ***the one that has been thoroughly refined.***

Bonus: Since most Indian languages are heavily influenced by Sanskrit, we can easily apply these attribute based names in our languages as well. As you all know, almost all these names are equally valid in our local Indian languages as well. So for Indian languages it has been always so easy, every time you need a name, just look towards Sanskrit and there you have it. And they sound so native in our languages, naturally. Be it Kannada, Telugu, Hindi, Bengali and even European languages including Greek, Latin, English, Russian German, Lithuanian – Sanskrit has donated numerous words to world vocabulary.

If anybody claims that Sanskrit evolved from this or that language, then they simply don't know Sanskrit. There is NOTHING in Sanskrit which is progressive evolution, [it is a "designed" language](#), like computer programming languages. The 2012 root words called dhatus, its ability to create new words on the fly are proof of it. You evolve only when you are not perfect. Sanskrit is a perfect language.

More interesting stuff in the next article. Did you find this first article not just useful, but interesting as well? For I want to make it as interesting as possible. Don't want to scare people away with complex terminologies and math equations like content. Sanskrit is a complex language, so is Mathematics, but learning both can be fun, only if it is presented in the right way. Someday will also come up with similar articles in Mathematics. Please leave comments, be it queries or criticism or suggestions. Also request learned Sanskrit scholars to point out any mistakes that might have crept in.

Most importantly, please share as much as possible. The world really needs to learn Sanskrit. It is a great language, one of the greatest but little known ancient innovations, and has a great potential.

Below are some great quotes from Sanskrit

Vasudhaiva Kutumbakam meaning

'Whole Earth is a family'.

Sarve jana sukhino bhavantu meaning

'May all beings live happily'

Ekam sat, viprah bahudha vadanti meaning

'Truth is One, learned scholars know it by many names'

Om Shanti Shanti Shanti Heem

'Let there be peace everywhere'

Sanskrit Lesson 2 – Dhatu, Magic Roots of Sanskrit

Before reading this second lesson of Sanskrit (Sanskrit) it is strongly recommended that you read the [first lesson to learn Sanskrit](#). It is in simple English, easy to understand, interesting and you will learn about a very important unique aspect of the Sanskrit language.

So we saw in our first lesson how in Sanskrit we do not **give** names, but **derive** names of objects and things based on their properties. **Giving a name** is just assigning a name that we like to a place, person or thing. Many a times these names are random in naturally evolved languages like English. **Deriving a name** on the other hand is using a name that tells something about the place, person or thing based on its attributes or properties.

For instance, the name of the place **Ayodhya** means the one which **can never be conquered**, derived from Yuddha meaning war. It talks about a kingdom that was never conquered by others in history. **Rama** means **delighting, pleasant, beautiful** and **Chandra** means **Moon**. **Ramachandra** hence means **as pleasant, delighting and beautiful like Moon**.

Unknown Object Identification by Names

Since an object can have multiple properties or features, in Sanskrit same object can have multiple names each describing a property of that object. Note that these are not actually the object names, but names of features of that object.

More than one object can have the same name if they share the same property or feature. By looking at the name of an object in Sanskrit we can **guess** which object it is without having to **memorize** its name. In other words, in Sanskrit we **understand** names not **remember** them. In case of attributes which are common among many objects, by mentioning a few more attribute names of that object, we can tell which object is exactly being referred to.

Take the case of the word **School**. If you already don't know what a School is then you will have to look into the English dictionary for its meaning. On the other hand in Sanskrit, a term used for School is **Vidyaalaya**, where Vidya means **knowledge** and **aalaya** means place. So just by looking at its name in Sanskrit you can say that School is a **place where one earns knowledge**, or **where one learns**.

Similarly **Shauchaalaya** is a place where one can fresh up, **Shuchi** means **clean** or **fresh**. So **Shauchalaya** means **Toilet**.

Aushadhaalaya means a **medical shop**, because **Aushadha** is medicine, so **the place where you get medicine** is Aushadhaalaya. **Hima** means Snow, **Himalaya** is the abode of Snow, a place where there is snow, The Himalayas. **Deva** means heavenly, **Devalaya** is any divine place, like a **Temple**.

Take the name of the Indian state **Meghalaya**, in Sanskrit **Megha** is a term describing **clouds**. So Meghalaya means **Land of Clouds**. Meghalaya receives one of the highest amount of rainfall on this planet. Places in Meghalaya like Mawsynram, Cherapunji receive world's highest rainfall. See how much of general knowledge is hidden in Sanskrit names!

Take the case of the word **Bird**. In Sanskrit a term used for birds is **Khaga**, and if you know Sanskrit Grammar, then you don't need a Sanskrit Language dictionary to know what Khaga means. **ga** means to **move** or **to go**. The **English word go is derived from Sanskrit ga**. **kha** means sky. So Khaga is something that **moves in the sky** – can be used to describe not just birds, but also Sun, even for planes and helicopters! They all move in the sky.

Now see the word **Mrga**. **Mr** means **kill**. So Mrga means the **one that moves to kill**. All predator animals like Lion, Tiger, etc can be called **Mrga**. When a person is called Mrga in Sanskrit, it means that person is behaving like a wild animal with predatory instincts, with an intention of harming. **Mrgalaya** is a name for **zoo, a place of wild animals!** Cow is not a Mrga, Lion is. Cow is a **Pashu**. Pashu means being restrained to a specific perimeter. Cows and cattle are restrained by tying them up using ropes.

Tura means **quickly**. So Turaga means the **one that moves quickly**. In Sanskrit one of the names of **Horse** is **Turaga**. Similarly **Ura** means **belly**, uraga is something which **moves on its belly**. **Uruga** is used to refer to **Snakes, Serpents** in Sanskrit.

Dur means **difficult**, so Durga is something that is **difficult to move into** or **difficult to access**. Durga hence is one of the names of **Fort** in Sanskrit.

In other words, Sanskrit names themselves are like **General Knowledge**, packed with facts. Just by looking at its names we can tell that a Lotus is *pale red in color* (**Kamala**), is *born in water* (**Jalaja**), is *born in mud* (**Pankaja**), and so on.

If you cannot be sure what an object is by looking at its single attribute name, look for multiple attribute names of that object. One of the reasons why Sanskrit verses use multiple names while referring to the same object or person is so that the reader can be sure which specific object or person is being referred to. Also, as described in the previous lesson, context plays a very important role in understanding the true meaning of a Sanskrit sentence.

So, in Sanskrit, mentioning multiple names act like a filter that further consolidate the object being referred to. If you have one attribute name, and say five objects have that attribute, mentioning any other attribute which other four do not have, will help the reader figure out the actual object being referred to. So usually two or three names are more than enough to make it clear which object or entity is being referred to in a sentence. That is the reason we find multiple names of an entity in many ancient Sanskrit texts.

Of course, as time passed, many entities were referred to by their most common or unique attribute. So nowadays, when a Sanskrit speaker says Kamala, it almost always refers to Lotus. But while reading ancient texts, one has to make sure that the context is actually referring to Lotus and not someone's reddish face.

No separate Dictionary in Sanskrit – Dictionary is part of Grammar

As we saw earlier, in other languages, say for example in English you just call it **Lotus**. Now if you don't know what '**Lotus**' means in English, then there is absolutely no information you can derive about which object this name represents without looking into an English dictionary.

Even if you are an expert in English grammar, you cannot know what a name means because unlike in Sanskrit, names are independent of the grammar in all other languages on this planet. They are simply categorized as nouns, and you have categories like proper nouns, common nouns – but nothing in the grammar has rules about how to derive a name. In other words, names in other languages are **absolute**, may or may not say anything about the object, and always refer to a given object.

There is no fixed rule as such in other languages about how you name things. The names are **absolute** in the sense there is a one-to-one mapping between a name and an object, for instance a **Violin** is always that, the musical instrument it refers to. **Lotus** is always that, the flower it refers to. Sometimes you might have multiple objects in English with the same name. For instance, a **Mouse** might be either an animal, or a computer hardware device. But again, they are absolute names.

On the other hand in Sanskrit, you can use the names to refer to anything that has the attribute being described by that name. For instance, as we saw earlier, **Khaga** can be used for anything that moves in the sky. You cannot do that in other languages because the names themselves do not describe any properties as such, they are not **derived names**, but **given names**.

So while in other languages you require a separate dictionary of names to look into the meaning of words, in Sanskrit all you need to know is Sanskrit grammar and in most cases can easily guess the object from its name. If the name in Sanskrit is referring to a more common attribute, then you need to look into the context of the sentence, or there will be adjacent words hinting at additional attributes of that object with more names, and you can guess the object easily. For instance, if the sentence

is about a flower, and says it is pale red and born in water, then it is referring to lotus.

You cannot identify an object in other languages with its name if you do not know the object, even if you are an expert in its grammar. Because grammar has nothing to do with names in other languages. But if you are an expert in Sanskrit grammar, you rarely need a Sanskrit dictionary. In fact, a Sanskrit dictionary similar to an English dictionary is not possible in the first place because objects do not have names in Sanskrit, only attributes do. So even if you write a Sanskrit dictionary, Jalaja should not mean Lotus there, but it should only say,

Jalaja = born in water. For example, Lotus.

And if you know Sanskrit grammar, you will know that Jala is water, Ja is "to be born". So what is the use of a Sanskrit dictionary then?

Wait, wait. But don't we need a dictionary to at least say

Jala = Water
Ja = to be born
and so on.

Well as I said earlier, Jala is **one of the** names of water. Jala in itself is the attribute name that means **having a cool touch**, which is a **property** of water. So we can use Jala while referring to water. Thus your dictionary will actually be

Jala = having a cool touch. For example, Water.
Ja = to be born
and so on.

But you don't need a separate dictionary like this in Sanskrit, if you are an expert in Sanskrit grammar! Why? I will explain, but before that...

Computational Parsing and Structured Information in Sanskrit

In naturally evolved languages like English, sentences can be ambiguous, and this is one of the primary reasons why it is extremely difficult for knowledge representation in Computers using human languages. In the sentence, "Flying planes can be dangerous", is it the planes that are dangerous, or the act of flying them dangerous?

If Sanskrit were the language of Choice in computation, then you could have directly written compilers to parse Sanskrit sentences, instead of

having to invent new programming languages like C or Java. What I mean is, suppose English were well structured like Sanskrit, then you could have written a compiler which directly compiles English sentences into programs, instead of having to invent new syntax for programming languages! The very fact that you have to invent new structured representation for programming languages means that existing grammar is not well structured, is ambiguous and difficult to interpret by computational logic.

If you write a compiler based on Sanskrit grammar, you can have it compile a Sanskrit sentence directly! Of course, the number of keywords in this compiler will be huge, it will be the number of dhatus that I will explain about later.

You cannot do that in other languages. For example, if you had to write a **for loop** in Sanskrit like how you write in programming languages, you could simply write a Sanskrit sentence which unambiguously says that what computation should be repeated how many times or till what condition is met.

The same holds true for querying stored information. In Sanskrit you wouldn't need to invent a separate structured database querying syntax like **SQL**, the Structured Query Language, Sanskrit is already a **Structured language** and Sanskrit sentences querying information are structured naturally, because the language itself is structured extremely well. If Sanskrit were used then there would be no need for SQL, and database engines like Oracle, MySQL, etc would be just parsing Sanskrit queries, not SQL.

You need SQL today because English is the predominant language in the world which invented computers and computing, and naturally evolved languages like English cannot be used to represent structured queries like SQL because English sentences themselves are not structured well, and are ambiguous. If all those software pundits who invented various computational technology knew Sanskrit, then it would be an all Sanskrit digital world on which Computers would be running today.

In fact, the world's oldest binary system of representing knowledge using just two symbols is found in the ancient Sanskrit work **ChandahShastra** by **Pingala** where enumeration of meters is done using short and long syllables – laghu and guru, similar to how zero and one is used in binary computing.

Many are not aware that **Sanskrit is already being used** in the **very foundation** of modern **Computer programming languages**.

If you don't know what **BNF notation (Backus-Naur Form)** is, it is a notation for writing context free grammars and all modern computer programming languages make use of these notations. This idea of writing context free grammar has its roots in the works of the ancient Indian grammarian **Panini** who used them to describe the structure of Sanskrit words. In fact there are suggestions to rename Backus-Naur Form as **Panini-Backus Form!**

Parts of Speech – Sanskrit and other languages

If you know English grammar, you must be also aware of the **Parts of Speech** in English. In the traditional English Grammar you have eight parts of Speech – Noun, Verb, Pronoun, Adjective, Adverb, Preposition, Conjunction, Interjection. Then you have this broad classification of words into **Open word classes** and **Closed word classes**, where open word classes include the ones like Nouns, Adjectives etc to which new words can be continuously added as the language evolves. Then you have closed word classes like pronouns, conjunctions etc which are a fixed set of predefined words in English.

Now as we know Noun is the name of a person, place or thing. But there is no grammatical rule in English about how to name a person, place or thing. Similarly there are no rules about how names of verbs are derived and so on. In short, there is no fixed rule about how you can name a word – be it a noun, verb etc. This is the same with languages across the world. I am only using English here as an example. What I say about English in these articles applies to all naturally evolved languages around the world.

So we have two issues here in non-Sanskrit languages. The first is, you will need a separate dictionary independent of grammar, to understand the meaning of different words in English. Grammar and names are totally disconnected in these languages and are independent of each other.

The second natural consequence of this is, the names may or may not give you any information of the object it represents. For instance, while the word **Thermometer** can imply that it is a device which measures temperature, the word **Scissor** on the hand implies nothing about what it is!

On the other hand in Sanskrit, a term used to denote Scissor is **Kartari**, where in **Kart** means to **Cut**. So, the term Kartari also tells us what exactly it does, unlike in English.

But we are back to our original question of, how do we know in Sanskrit that **Kart** means cut, **Ja** means born, etc?

The answer is that unlike grammar in other languages whose basic building blocks are many different classes called Parts of Speech, the basic building blocks of Sanskrit grammar are just a **group of root words** called **Dhatu**.

Dhatu – The magical building block of Sanskrit Grammar

You do not start learning Sanskrit Grammar by learning different parts of Speech, but instead there is an even more fundamental building block called **Dhatu**. Dhatu is a fixed set of very short words in Sanskrit Grammar representing ideas – any idea like an action, a property, etc. In English they call it Verb Roots, but more specifically these represent ideas like **to be, to go, to do**, etc. There are 2012 Dhatus in all in Sanskrit, and this is a fixed set.

It is said that ancient Vedic Sanskrit had even more number of dhatus. So the Sanskrit of today, called the Classical Sanskrit, is actually a subset of the original Vedic Sanskrit and that is for only one reason, the number of dhatus was reduced in post vedic period.

Everything else in Sanskrit Language is built on top of these 2012 Dhatus. If you know the meanings of these Dhatus, you can derive the meaning of ANY Sanskrit word! That is because all Sanskrit words are built on top of these Dhatus. Each word is derived from one or more Dhatus using the rules of Sanskrit grammar. So Sanskrit never needs any loan words, because the very process of word creation is inbuilt in Sanskrit grammar.

Unlike non-Sanskrit languages where Dictionary and Grammar are independent of each other, Sanskrit **starts with a dictionary of Dhatus** and Sanskrit grammar is just **the rule of creating words and forming sentences** using words derived from these Dhatus!

You should by now have understood what I meant when I said you don't need a Sanskrit dictionary if you are an expert in Sanskrit Grammar. If you know Sanskrit Grammar, then you also know the Dhatus which are the basic building blocks of Sanskrit, and if you know them you also know the meaning of every word, because all Dhatus have meanings and all words in Sanskrit are derived from these Dhatus. So you will never need a separate dictionary to find meanings of names, because names themselves are meanings in Sanskrit.

If you are from a computer programming background, then Dhatu words are like base classes, and all other words in Sanskrit are like derived classes. They represent various attributes, and when you apply these attributes to specific objects, they become like instances of those classes. For instance, **Mr** and **Ga** are base classes from which the class **Mriga** is derived, which means anything that moves to kill. Now when you apply this attribute to a specific object like say a Lion, it becomes an instance of this derived class **Mrigam**.

More on this instance creation later. For now just remember that **Dhatu** is a abstract base class, **vyaya** is a derived class and **avyaya** are instances of derived classes. **Dhatu** is **abstract** because you don't create instances of abstract classes, you derive **Vyaya** words from **Dhatu**, and then create instances of those Vyaya words i.e **Avyaya** words. There will be a separate detailed lesson on this later. So don't worry much if you don't understand this yet.

Sanskrit – A Refined Language

Sanskrit has remained a language unchanged, never evolved but was perfectly designed in the very beginning with everything in place. No new grammar rules were added to Sanskrit at any point of time later. All new words created in Sanskrit can be traced back to a combination of these 2012 dhatus and related grammar rules, and also retaining the original idea of those dhatus. So you don't need ever expanding dictionaries in Sanskrit as new words are created, because they can easily be split into their root dhatus to extract the meanings of these new words.

In Sanskrit the set of Dhatus remains fixed, and all new words are derived from these Dhatus. But dictionaries of other languages keep increasing over time, because there words are independent from grammar. So for instance, the English dictionary is ever expanding, started with around 3000 words, and today has nearly 300,000 words!

For most of these words you need to have a dictionary of English to find its meaning, where as in Sanskrit you can create millions of words and still there wouldn't be need for a dictionary! Just split the words into its Dhatus and you will get the meaning! And Dhatu is a closed word class in Sanskrit grammar, meaning you cannot add new dhatus to the list.

In fact, in Sanskrit, if you are creative enough, you can write your own dictionary that also doubles up as a knowledge base describing huge number of facts about different objects and classes.

Those who know modern English find it next to impossible to read and understand old English, or for that matter those who know modern **Kannada (Hosagannada)** cannot understand **Old Kannada (Halegannada)**, same in other languages as well. But in Sanskrit, there is nothing like modern, old etc because there has been no evolution of Sanskrit in the first place.

EDIT: The 3 paragraphs below were added after reading the comments by Dharma Dhawaja in the comments section.

The only change was reduction in the number of dhatus from Vedic Sanskrit to Classical Sanskrit. This happened after Panini wrote Ashtadhyayi that hugely simplified the original grammar and by removing dhatu forms from the original Vedic Sanskrit whose usage had become rare by his time. So, if the Vedic Sanskrit was like the difficult C programming language, Panini created a Java version of it which became the Classical Sanskrit.

So, it was not that Panini created the grammar of original Sanskrit, the Sanskrit was designed even before the vedas were written, because they are written in Vedic Sanskrit and you need to have the language first. Panini simplified the Vedic Sanskrit, and it became Classical Sanskrit.

In other words, Sanskrit never evolved. In one shot, in the beginning, Vedic Sanskrit was designed. Much later, in one shot, a simplified version of Sanskrit, a version 2.0 – Classical Sanskrit was created by Panini that became quite popular in writing later Sanskrit texts, because it was more easy than Classical Sanskrit.

In terms of ease of use – if Vedic Sanskrit is like the C programming language, then Classical Sanskrit is like C++.

An introduction to some more Dhatus

The entire process of learning Sanskrit is learning Dhatus and the rules of playing around with these Dhatus creating extremely beautiful and innovative combination of words and sentences. There is no unnecessary complication. We will have a very brief look at some Dhatus now, and as we move forward in future lessons, make ourselves more comfortable with more Dhatus and the rules of using Dhatu to form words and use them in sentences. As I said in the beginning of this series in the first lesson, this Sanskrit learning series will be more like practical classes, than plain boring theory classes.

We now know that Dhatu is a basic building block of Sanskrit words. All other names in Sanskrit are derived from these fixed set of Dhatus. When we said earlier that **Khaga** denoted a bird, implying the one that **moves in the sky**, we saw that this meaning came from splitting the word in kha and ga where **kha** meant **sky** and **ga** (from the dhatu **gam**) meant **to move**. So by now it should be clear that in Sanskrit to understand the meaning of a word, all we need to do is split it into its root Dhatus and using the meaning of the ideas behind that dhatu we can understand the meaning of the word. So simple and beautiful, isn't it?

Dhatu Roopa – Splitting words into Dhatus

This processing of splitting a word into its dhatu format is called **Dhatu Roopa**. Remember this term, as we will be using it quite often. Dhatu Rupa means the **Dhatu Form**. By Dhatu Roopa we mean finding out the root Dhatus of the word, i.e doing the reverse process of word creation using Dhatus to find word meanings.

Let us start with the very word **Dhatu**, because even this is a Sanskrit word and hence should be derived from some Dhatu word This word is derived from the Dhatu called **Dha** in Sanskrit. Dha means **foundation, root, basic building block**. How is the word Dhatu derived from Dha? More on this in future lessons. For now, just remember that Dhatu is derived from the Dhatu word **Dha**.

Since, the meaning of this is root or foundation, all the root words of Sanskrit which form the building block of Sanskrit language are called Dhatu. Moreover, as we saw earlier, since these are names of the properties, and since the property name Dhatu represents root, foundation, basic building block, it can be used to represent any such root or base object!

So in Chemistry for instance Dhatu represents **Chemical Elements, Metals** etc which are the basic building blocks there. In Ayurveda, Dhatu represents the basic building blocks of our body like for instance **Asti Dhatu** represents the **building blocks of bones**, as **Asti** represents **Bone** in Sanskrit. **Rakta Dhatu** represents the building blocks in blood, where **Rakta** represents **Red Color** and hence **Blood** in Sanskrit.

Kr is a Dhatu which means **to do**. **Karman** is a derived word of this Dhatu meaning **deed**. **Kriya** is derived from this dhatu and means **action**. The word **Prakriya** is derived from this dhatu and means **process**. Then the word **Sakriya** is derived from this Dhatu and means **being active**. And so on. In fact there is a huge number of combinations possible from each dhatu, and we will learn about the actual

process of creating words, combination of words, sentences, meanings and so on in the future lessons of Sanskrit grammar.

Inflection – an amazing contribution of Sanskrit to Linguistics

But note that, one of the biggest contribution of Sanskrit to the world of linguistics was **inflection**. Consider the English word create – its inflections are words like creating, created, creation, creates, creator, etc. Sanskrit was the first language in the world to come up with this concept of using the same word, modify it a little (inflect it) and use it to mean things related to that word.

This is a great innovation, which many of us ignore, just like the way we ignore the wonderful idea of place value based number representation invented by ancient Indians.

Imagine having to create a separate word for created, creation, creating, creates, creator etc without using the inflected forms! Sanskrit gifted the concept of inflections to the world of languages.

Summary of Sanskrit Lesson 2

Today we learnt that

- In Sanskrit, attributes and properties have names, and all the names in Sanskrit are derived from a fixed set of 2012 root words called Dhatu.
- Dhatu, not the Parts of Speech, forms the basic building block of Sanskrit.
- The process of deriving names is in built in Sanskrit Grammar, because of which Sanskrit never requires any loan words from other languages. If there is a new invention, a new object or a new information discovered, Sanskrit grammar can be used to easily create one or more new words to represent it. We saw an example of representing download and upload in our First Sanskrit Lesson.
- Since the Dhatus have meanings attributed to them, and since there is a predefined process of deriving names in Sanskrit, all names in Sanskrit have meaning inherent in the name itself

unlike in other languages. For example in English the word Quiz means nothing without a dictionary, or the word Magma means nothing without a dictionary. However in Sanskrit, every word means something on its own, without referring to an particular object or class. In other words, all Sanskrit names state facts – describe the nature and attributes of the thing they represent.

- Since Sanskrit is an extremely well structured language with no ambiguity in its grammar , Sanskrit Sentences can easily be used in computational language unlike other natural languages whose sentences are ambiguous and whose grammar is extremely complex making it difficult to write compilers which can understand English sentences. For instance, if Sanskrit was used as a language for database queries, you wouldn't have needed SQL, because queries in Sanskrit are as structured as SQL.
- Dhatu words have meanings over a vast range covering all possible basic meanings representing all human knowledge and actions. Words are derived from one or more Dhatus using a set of grammar rules to represent compound properties and attributes like we saw for "moving in sky", "born in water" and so on. These attributes are then used to represent objects which have the properties matching these attributes, as we saw for Birds, Lotus, etc.
- So Sanskrit language words are an encyclopedia in itself, with each name describing one or more properties of what it represents.
- More in next lesson. Questions, corrections, criticism is welcome. Please do not forget to share this lesson. Knowledge and Happiness grows by sharing.

Sanskrit Lesson 3 – Sanskrit Alphabet and Devanagari Script

In [Sanskrit Lesson 1](#) we learnt that Sanskrit is unlike any other languages where in **objects** do not have names, but only **properties** have names, and all objects are referred to using their properties. So in Sanskrit we can always create names for any new object that is invented or any new knowledge that is discovered.

In [Sanskrit Lesson 2](#) we learnt that the root of Sanskrit Grammar are 2012 words called **Dhatu** (Verb Roots), and not the **Parts of Speech**. All these Dhatus have different meanings assigned to them, and all words in Sanskrit are derived using these root words or Dhatus. We also saw in Lesson 2, how Sanskrit can be used in **computer programming** and how it is already being used. In future lessons we will see more on this subject.

In this third lesson we will learn about the **science behind the alphabet structure** of the Sanskrit language. The alphabet systems of almost all Indian languages are based on this science. It is a classification based on the way the sounds of various alphabets are produced in the human mouth.

Also, though we are introducing a Sanskrit script in this lesson, I will also try to make sure that you continue to learn Sanskrit even if you are unable to learn the script immediately. I will do this by continuing to present the language in English as well.

My suggestion to those (especially Indians) who think they are already familiar with the Sanskrit alphabet system (because of their existing knowledge of some other Indian language like Hindi, Bengali or Kannada) is that, I strongly recommend that you still go through this lesson. That is because in the middle of this lesson and at the end, we are presenting some very interesting facts about the alphabet system which is generally not taught in the regular schooling system.

Also, while this lesson might sound technical with many new words creeping in, make sure that you read and understand only that portion that is explained in simple English. There is **no need to remember or memorize** any new word, features, names that are mentioned in this lesson. This lesson is being provided with the sole intention of serving as

a reference point to look back as we proceed further with other Sanskrit lessons in the future. So just read and understand whatever you can, ignore whatever you cannot. Of course, you can ask any specific questions in the comments section.

A brief History of Sanskrit Writing System and Scripts

We know that English does not have a script of its own and instead we use the Latin script to write English. The English alphabet has its roots in Latin script and has 26 letters from A to Z of which A,E,I,O,U are vowels and remaining consonants.

Sanskrit does not have a script of its own either. In the ancient times, all the Sanskrit texts were passed down orally through human memory from generations to generations. To make memorizing the texts easy, entire texts used to be composed in poetic form. Which is why you find most ancient Sanskrit texts written in the form of poetry. Also, as we saw in the earlier lessons, the ability to compose new words from dhatus, adds to the creative ability in Sanskrit to compose great quality rhyming poems.

The reason for passing down the texts orally without writing them down was to make sure that the texts are preserved at any cost, and also to ensure that the Sanskrit pronunciations are not forgotten or mispronounced over time. Books written down get lost, human memory does not, especially when it is passed down through generations of thousands of students learning these texts.

This is the very reason why while most of the books written just a few centuries back have been lost, the Sanskrit texts like vedas and upanishads have been preserved in their exact original format even after so many thousand years!

Devanagari Script and its features

Writing down of Sanskrit started somewhere around the time of the Mauryan Empire where the Brahmi script was used to write down Sanskrit text for administrative purposes and for new literature created in Sanskrit. Even today Sanskrit is written down using a variety of regional scripts like Devanagari, Kannada, Gujarati, Bengali, Tamil, Thai, Gurmukhi, Telugu, Tibetan and so on. However, Devanagari script is the

most widely used script in writing down Sanskrit texts, even though texts also continue to be written in various other scripts listed above.

So for the sake of convenience, we will restrict ourselves to using the Devanagari script in this series of Sanskrit lessons. Devanagari is a combination of the words **Deva** meaning *divine* and **Naagari** meaning *urban or sophisticated*. So **Devanagari** means a *divine sophisticated script*.

Some of the notable features of the Devanagari script are:

Absence of case

There are no distinct uppercase or lower case letters in Devanagari. In fact, none of the Indian languages have distinct upper case or lower case letters. Letters are caseless.

Presence of horizontal top line

A distinct feature of the Devanagari script is the horizontal top line that runs on letters of the same word. Here is an example of writing the very word **Devanagari** in this script. See the horizontal line running on its top.
देवनागरी

Absence of Spelling

There is no concept of spelling in Devanagari, nor in any Indian languages. You write what you speak. There is a separate letter for each syllable. So when you say Devanagari you write देवनागरी where

- दे is a letter which sounds De
- व sounds va
- ना sounds naa
- ग sounds ga and
- री sounds rii.

There is no business of remembering spellings in Indian languages, no unnecessary complications. Also, all Indian scripts including Devanagari are written from left to right.

Science behind the Sanskrit Alphabet

The arrangement of letters in Sanskrit alphabet is called **Varnamaala** written as वर्णमाला which means **Garland of Letters**.

In English alphabet there is no logical reasoning in the arrangement of the letters. There is no reason why D comes after C or why the vowels lie scattered around in the alphabet. In Sanskrit on the other hand, and so in all other Indian languages as well, the vowels and consonants are categorized separately. Again, these categories are arranged in rows of sub-categories.

First come the vowels in the Sanskrit alphabet.

Sanskrit Vowels – Swara

अ आ इ ई उ ऊ ऋ ॠ लृ ए ऐ ओ औ

are the Sanskrit vowels. In Sanskrit, **Swara** is the term used for vowels. See details below about how to pronounce each of them.

The grouping logic of the Sanskrit alphabet is based on where and how the sound is produced inside the mouth. Of these अ इ उ ऋ लृ are short vowels, while the others are long vowels which take twice the time of short vowels to pronounce them.

Kantya (Guttural)

Guttural Sound Creation

The sound of the vowels अ and आ are produced at the throat, or near the back of the oral cavity. Hence they are called **Kantya** (कंट्य) vowels meaning, **from the throat (Guttural)**.

अ is pronounced like u in cut, it is the short a – the mid central vowel. आ is pronounced like the second a in karma, it is the long a – open back unrounded vowel.

Taalavya (Palatal)

Palatal Sound Creation

The sound of the vowels इ and ई are produced by the tongue touching the roof of the mouth (Palate). Hence they are called **Taalavya** (तालव्य) vowels meaning, **from the palate (Palatal)**.

इ is pronounced like i in big. ई is pronounced like ee in feel.

Oshtya (Labial)

Labial Sound Creation

The sound of the vowels उ and ऊ are produced using the lips. Hence they are called **Oshtya** (ओष्ठ्य) vowels meaning, **from the lips (Labial)**.

उ is pronounced like u in put. ऊ is pronounced like oo in cool.

Murdhanya (Retroflex or Cerebral)

Cerebral Sound Creation

The sound of the vowels ऋ and ॠ is produced by the tip of the tongue curling back against the roof of the mouth. Hence it is called **Murdhanya** (मूर्धन्य) vowel meaning, **from the roof of the palate (Retroflex)**.

There is no equivalent pronunciation in English for ऋ and ॠ, though it makes it easy to understand that it sounds like r in run, rust etc, except that this is a vowel. ॠ is very rarely used.

Dantya (Dental)

Dental Sound Creation

The sound of the vowel ॡ are produced by the tongue touching the upper teeth. Hence they are called **Dantya** (दंत्य) vowels meaning, **from the teeth (Dental)**. This is rarely used, so you can ignore it for now.

Kantataalavya (Palato – Guttural)

The sound of the vowels ए and ऐ are produced near the throat by the tongue touching the roof of the mouth. Hence they are called **KantaTaalavya** (कंटतालव्य) vowels.

ए is pronounced like a in may. ऐ is pronounced like ai in fair.

Kantoshtya (Labio-Guttural)

The sound of the vowels ओ and औ are produced near the throat by the rounding of the lips. Hence they are called **Kantoshtya** (कंटोष्ठ्य) vowels.

ओ is pronounced like o in bow. औ is pronounced like o in more.

Ornaments to the Vowels – Anuswara and Visarga

Apart from the vowels listed above there are two other letters अं and अः that are used to decorate the vowels.

अं is called Anusvara and अः is called the Visarga. These are neither consonants nor vowels, and are listed at the end of the vowels, usually as a part of the vowel group itself, but at the end.

The **Anusvara** is a nasal whose pronunciation depends on the preceding consonant which we will be discussing in detail in the future lessons. The name Anuswara means **after vowels** and it appears in front of vowels. It is pronounced like ome in come.

The **Visarga** which means **sending forth** adds a softening short burst effect at the end. It is pronounced like aha in sahara.

Sanskrit Consonants

Next come the Sanskrit consonants. The first five rows of five each letters are very important in their arrangement and are also used in many formulations of interesting Sanskrit sentences that we will be discussing in our future lessons.

क ख ग घ ङ

च छ ज झ ञ

ट ठ ड ढ ण

त थ द ध न

प फ ब भ म

Here again

1. The first row क ख ग घ ङ are guttural consonants
 1. क is pronounced like k in kettle. It is like the English K.
 2. ख is pronounced like kh
 3. ग is pronounced like g in go. It is like the English G.
 4. घ is pronounced like gh in ghat
 5. ङ is rarely used, so we can ignore it for now
2. The second row च छ ज झ ञ are palatal consonants
 1. च is pronounced like ch in chair
 2. छ is pronounced like chh
 3. ज is pronounced like j in jug. It is like the English J.
 4. झ is pronounced like jh
 5. ञ is rarely used, so we can ignore it for now
3. The third row ट ठ ड ढ ण are retroflex consonants
 1. ट is pronounced like t in tin. It is like the English T.
 2. ठ is ट stressed
 3. ड is pronounced like d in dinner. It is like the English D.
 4. ढ is ड stressed
 5. ण is न see below) stressed
4. The fourth row त थ द ध न are dental consonants
 1. त is pronounced like th in thin
 2. थ is त stressed
 3. द is pronounced like th in this
 4. ध is द stressed

5. न is pronounced like n in nut. It is like the English N.
5. The fifth row प फ ब भ म are labial consonants
 1. प is pronounced like p in put. It is like the English P.
 2. फ is pronounced like f in fun. It is like the English F.
 3. ब is pronounced like b in bun. It is like the English B.
 4. भ is ब stressed with h
 5. म is pronounced like m in mud. It is like the English M.

In each row, the second and fourth consonants are called **mahaprana** consonants meaning they are aspirated consonants where in a strong burst of air accompanies their pronunciation. Without this strong burst of air, they become the same as the first and third consonants respectively in these rows. The first and third consonants are called **alpaprana** consonants.

Similarly in each row the third and fourth consonants are similar to the first and second consonants respectively except that in the former the sound comes more deeper from the throat with the resonance of the vocal chords.

The fifth consonant in each line is a nasal. Which means to pronounce this consonant you just need to follow the same position of that row (like guttural or palatal) and make a nasal sound.

Semi Vowels

Semi Vowels are those alphabets which are the resultant of a transition from one short vowel to the vowel अ.

य र ल व

are the semi vowels in Sanskrit alphabet system. Let us look at the origins of these semi vowels.

- य is the transition from इ to अ and is a palatal semi vowel. It is pronounced like y in yes. It is like the English Y.
- र is the transition from ऋ to अ and is a retroflex semi vowel. It is pronounced like r in ram. It is like the English R.
- ल is the transition from ॠ to अ and is a dental semi vowel. It is pronounced like l in love. It is like the English L.

- व is the transition from उ to अ and is a labial semi vowel. It is pronounced like v in van. It is like the English V.

Hissing Sounds

There are three hissing sounds in Sanskrit alphabet. They are

श ष स

- श is a palatal hissing sound. It is pronounced like sh in she.
- ष is a retroflex hissing sound. It is stressed श.
- स is a dental hissing sound. It is pronounced like s in sun. It is like the English S.

Aspirate

ह is an aspirant that is pronounced by expelling air from the throat (like a guttural) along with the vowel. It is pronounced like h in home. It is like the English H.

Pronunciation of Sanskrit Alphabet – Swara (Vowels) and Vyanjana (Consonants)

The complete set of Sanskrit Vowels, Consonants, Semi Vowels, Hissing Sounds and Aspirate is as follows.

अ आ इ ई उ ऊ ऋ ॠ लृ ए ऐ ओ औ

अं अः

क ख ग घ ङ

च छ ज झ ञ

ट ठ ड ढ ण

त थ द ध न

प फ ब भ म

य र ल व

श ष स

ह

Summary of Lesson 3

In this lesson we learnt that

- Sanskrit has no script of its own and is written today in many Indian scripts like Devanagari, Kannada, Telugu, etc.
- Devanagari is the most widely used script to write Sanskrit.
- Indian language alphabets have no case.
- Unlike English, there is no concept of spelling in Indian languages.
- Sanskrit alphabet is arranged first into vowels, and then into Consonants.
- Anuswara and Visarga come at the end of the vowels.
- The arrangement of vowels and consonants is classified based on how and where the letters are pronounced in the mouth.
- All Indian languages inherit these major features of Sanskrit alphabet system of classification of vowels and consonants.
- From the next lesson, we will start leaning simple Sanskrit sentences and start conversing in Sanskrit.

If you have not read it yet, please do read about the history of [evolution of Prakrits and the design of Sanskrit](#) in ancient India

