



### Significance

Among the many theories of the origin of language, one is the Bow-wow theory which proposes onomatopoeia to be the origin point for language (Themistocleous et al., 2021). It is not widely accepted as it simply lacks proof. This is because onomatopoeic words make up a very small percentage of a language (Imai et al., 2014). The present study will probably be the first to present significant evidence in support of Bow-wow theory.

Ancient Sanskrit grammarians like Yāska have tried to provide the etymology of every Sanskrit word. Yāska was of the opinion that every word - and hence the entire language - can be reduced to its roots (Sarup, 1967, p. 57). However, no attempt was made to find the origin of the roots. Again, as stated above this work will probably be the first attempt.

Likewise, not much effort has undergone into exploring the roots in terms of semantic change (change in meaning of word), although Sanskrit words have been studied for the same (Kamboj, 2017). This study will demonstrate existence of root clusters in Sanskrit similar to phonesthemes, by taking into consideration semantic change. This, in turn, will establish onomatopoeia as the source, directly or indirectly, for many roots and ultimately words.

### Objectives

- To demonstrate onomatopoeia as the direct source of some Sanskrit roots.
- To demonstrate onomatopoeia as the indirect source of many kindred roots, by exhibiting phono-semantic association of kindred roots to the primary root.
- To exhibit root clusters in Sanskrit, similar to phonesthemes in other languages.

### Scope and Limitations

The study aims to showcase connections between Sanskrit roots never before seen, or at least not on the scale this paper attempts.

This will help in establishing meaningful connections between the roots and the sounds, and consequently hundreds of thousands of words. A student of Sanskrit can learn the language faster if he understands these connections. This is because it is easier to remember something with a context or meaning than just learning it by heart. This will turn out to be a better and faster teaching module to teach the language.

Preservation the language: Over time the meaning of a word is lost or undergoes change. In order to preserve its meaning etymology is necessary. Hence study of etymology was also included in ancient vedpathshalas. The present study will strengthen the etymology studies even more and help in deciphering meanings of some lost words.

The study will significantly help to establish Sanskrit as the mother language and not daughter language of Proto-Indo-European, by providing etymology from sounds and not from an imaginary language viz., Proto-Indo-European. Ultimately this will help in debunking the AMT (Aryan Migration Theory).

### Research Problem

Ancient Sanskrit grammarians had already made significant progress in the science of etymology approximately 3000 years ago by trying to postulate the origin of every word from a root. But they don't seem to have pondered over the origin of the root words themselves. They didn't cross the 'sound-meaning' barrier.

Modern day linguists have not only crossed the ‘sound-meaning’ barrier, they have even made sufficient progress in finding out why certain sounds possess the particular meaning in the mind of the language speaker. This is known as sound symbolism. However, linguists don’t consider onomatopoeia as a major part of sound symbolism. Likewise, ancient grammarians too didn’t believe onomatopoeia to be of much significance.

Do the roots of the Sanskrit language exhibit sound symbolism of onomatopoeia?

Are roots with similar forms (alliteration and rhyming) semantically connected?

If the semantic link is established between an onomatopoeic root and roots similar to it in form, this would mean all these resembling roots are secondary and the onomatopoeic root is primary. They are derived from the original onomatopoeic root. In this way, directly and indirectly, can it be possible to demonstrate onomatopoeia as the major origin point of Sanskrit roots - and hence the words?

### **Research Questions**

1. Do some Sanskrit roots originate directly from onomatopoeia?
2. Do Sanskrit roots form sound-meaning clusters similar to phonesthemes?
3. Do many other Sanskrit roots originate indirectly from onomatopoeia by being semantically linked to direct roots?

### **Research Methodology**

The present research is fundamental research. However, in order to supplement the hypotheses, comparative methodology is used.

Onomatopoeia is a phenomenon of hearing words in sounds. Almost all of the sounds are available to hear everywhere. However, since the sound is translated in the language, it can be translated differently depending on the language of the hearer. Hence, although it will be intuitively obvious when onomatopoeia is proposed for a root, numerous examples from modern languages will be provided to strengthen the identification. When explaining the unknown/unproved, comparison with the known/proved is undertaken.

Similarly for semantic changes or associations, comparative method is used. Intra-language and inter-language comparisons are provided, if and where they are available.

### **Literature Review**

While studying old Sanskrit literature for another unrelated purpose, these features of the Sanskrit language were noticed. After the research work was completed, which was accomplished with the help of a Sanskrit dictionary and a list of roots, it was necessary to express it in the form of a paper. In doing so, similar research by linguists was referred for validation and comparison. None of this research was referred in the actual research process, as the author isn’t a linguist by profession or education. A somewhat similar process of finding Sanskrit word or root groups was done by author’s like Aurobindo and Nicholas Kazanas.

- The origin of Aryan speech by Aurobindo
- Works of Nicholas Kazanas

- Phonesthemes in Latin Language – Filippo Maria Leonardi. This work is a similar attempt which groups phonesthemiclaitin words and tries to find origin of the short common word in onomatopoeia.
- Emilie Aussant. Sanskrit Theories on Homonymy and Polysemy. Bulletin d'Études Indiennes, Association Française pour les Études Indiennes, 2014, Les études sur les langues indiennes. Leur contribution à l'histoire des idéeslinguistiques et à la linguistiquecontemporaine.
- Semantic change - Willem B. Hollmann. This paper talks of semantic change and proves how due to semantic change some words can acquire drastically different meanings. For example, silly originally meant blessed. He proves his assertion by providing intermediate meanings of silly and showing the gradual progression. A similar approach has been used in present study for roots with contrasting appearing meanings.
- The Roots of the Sanskrit Language. W. D. Whitney.

### 1. Primary Roots

The roots which have a direct sound-meaning correlation are called as primary roots. Other roots which have an indirect correlation by virtue of being connected to direct roots are termed as secondary or derived roots.

- a. √हस् (has) - to laugh, to open, ridicule, and sound (Apte, 1965, p. 1025). Comes from the laughing sound Hahaha! Almost universally the laughing will be represented by hahaha. While laughing we also tend to open the mouth wide, hence the root also has the meaning 'to open' associated with it.
- b. √चुष् (cuṣ) – to suck. √शुष् (śuṣ) – desiccate, take moisture out (Apte, 1965). Comes from sound of sucking water or a liquid.
- c. √शम् (śam) – to keep quiet, to be calm, rest (Apte, 1965, p. 905). Universally, the sound Shh! indicates to a person to keep quiet or be silent. So the meaning of root √शम् as being quiet or calm is very intuitive, unlike other languages. This root gives rise to words like शान्त (Śānta) and शान्ति which mean silence.
- d. √गल् (gal) – to eat, drip, flow; √गृ (gṛ) – to swallow, eat, utter sound (Apte, 1965). The ga and ka sounds come from the throat. So the words for throat are **gala** and **kṛka**. When swallowing water or food the throat's movement happens and sound roughly resembling 'gl' is emitted. Hence this action has a similar word in English – **gulp** (*Merriam-Webster*). The action of rinsing water in throat is **gurgling**. Throat in Latin is **guttur, glutus** (*Wordhippo*). Hence the roots√गल् and √गृ have acquired meanings like swallowing, eating etc.
- e. Animals frequently make noises which sound like grr, grr. So a dog growls, a pig grunts, a person in pain groans, an unhappy person grumbles, snoring in Marathi is called 'ghoraṇe' (Apte, 1995). Obviously such roots with word forms beginning with 'gr' are expected to carry the meanings which indicate making sounds or noises. The same are given below:  
√गृ- to utter sound  
√गृज्grj / √गर्ज् garj – to roar, sound. गर्जति(Garjati) – to thunder, roar  
√गर्द – to sound. Gardati – to shout, make any sound. Gardabha – ass, donkey.

In addition to animals some other phenomena create similar sounds. गर्गर (Gargara) means a whirlpool, churning. घर्घर (Gharghara) means a gurgling, creaking sound, a door etc.; the sound made when two objects are brushing or rubbing against each other.

In English, the onomatopoeia for reducing to small pieces by pounding is ‘grind’ (*Merriam-Webster*). A similar root can be seen below.

√घृष् (ghṛṣ) - to grind, to polish. घर्ष (Gharṣa) – friction (Apte, 1965).

- f. When playing with a baby we sometimes wag our tongue and in the process make la, lu like sounds. The small kids in turn have a habit of sticking their tongue out to tease which makes short ‘l’ like sounds. The song sung for the baby is a ‘lullaby’ (*Merriam-Webster*), in Hindi it’s a ‘lori’. Naturally the root words that begin with the consonant ‘l’ have acquired meanings related to all these actions.

√लुल् (lul) – wag the tongue, to move to and fro.

√लल् (lal) – to play, loll the tongue.

√लड् (lad) – to play, fondle.

Lolati – roll about, move to and fro (Apte, 1965).

- g. Tearing a cloth or a paper sounds something like ‘trr’. The onomatopoeia for tearing in Marathi is ṭarāṭarā, or ṭarakāvaṇe (Apte, 1995). No wonder that roots carrying such sounds mean tearing, splitting or cutting.

√दृ (dṛ) - to tear, split. √त्रु tru or √त्रुट् trut – to tear; break (Apte, 1965)

- h. When we blow air through our mouth we make ‘phuuu’ or ‘puu’ like sound. Naturally blowing air through the mouth is called फुत्कार (phutkāra), which in English is called a ‘puff’. Blowing also means expanding, increasing probably because we expand our cheeks while blowing air. Hence these roots have meanings related to expansion, blossoming, swelling, fullness, etc.

√फुल्ल् phull– to blow, expand, swell

√पुष् पुष - to increase, nourish

√पुष्प् पुष्प - to blow, to flower

√पूर् pūr – to be full, to be satisfied (Apte, 1965)

- i. Blowing air is used for constructive purposes also. In case of a winnow the grains are tossed in air and air is blown over them. The lighter chaff of the grain gets separated and what remains in the winnow is pure grain. So naturally another meaning of purifying and separating is acquired for the root words beginning with the letter ‘pu’.

√पू (pū) - to clean, purify, to discern

√पूण् पुण - to be pure or virtuous

The ancient writers seem to be aware of this phenomenon when they make this statement: For it is that wind which here purifies (pavata) and it is that wind that separates everything here (Eggeling, 1885, p.31).

The meanings of the various words formed from the root पू make it clear of the origins of the root. पव (Pava) – air. पवन (Pavana) – literally airing, hence also winnowing of corn. पवन–wind (Apte, 1965).

j. √पत् (pat) – to fly, fall, alight. The flapping of bird wings creates a variety of sounds. Birds with fast moving wings make the ‘whirring’ sound whereas some others barely make a sound while flying. However, flapping by some common birds surrounding us like the pigeon sounds like clapping or slapping. In Marathi and Hindi wing sound is called ‘phadphadna’ (*Collins*) containing the word ‘phad’. Slapping on the body in Marathi is ‘phaṭkā’ (Apte, 1995). Slapping on the back in English is ‘pat’ing (*Merriam-Webster*). In Hindi, slapping or slamming something on the ground is patakana or patakdena. So it seems possible that the root ‘pat’ finds its origin in flapping of bird wings which makes a similar sound to slapping. Hence naturally the root ‘pat’ has got the meaning flying. As for one of the other meaning of the root viz. falling, it seems surprising. How can a root have contrasting meanings? This question can be answered by looking at a wing feather. If a feather is thrown in the air it eventually falls to the ground but while coming down it floats or flies in the air. So it is simultaneously falling and flying. From this action the root may have acquired contrasting appearing but connected meanings.

Similar to the feather, a leaf and a page also simultaneously fly and fall. No wonder the name for the feather, leaf and page is पत्र (Patra) or पत्र (Patatra) from the root pat (Apte, 1965).

k. √चम् (cam) – to eat; drink (Apte, 1965, p. 428). The ‘ch’ sound is made by contact of the tongue with the palate. While chewing or eating, the tongue sticks to the palate repeatedly as we open and close the mouth. This makes the ‘ch’, ‘ch’ sound while eating.

These are but a small number of roots. So what about the other roots? How did they get their meanings?

Consider the two words artistic and artificial. Artistic means artful, while artificial also originally meant artful but it underwent a semantic change and currently it means man-made. So artificial and artistic are two similar looking words with different but related meanings. Also consider the English words like glow, glitter, glisten, glare which all begin with ‘gl’ and all of them mean something related to light. Such words are called phonoesthemes by linguists. Sanskrit also has such words of similar forms with slightly different but related meanings.

Consider the words pippala – **berry**, pippalī – **long pepper**, pipīlaka – **ant**, pippala – **nipple**. All these objects are roughly similar: small, round, black. Hence they all have similar word forms.

Few more examples:

a) फुल्ल phulla/phula – flower, फल (phala) – fruit, फालि (phāli) – leaf.

b) Śara – an arrow, a wound

Śala – an arrow, porcupine quill

Śūla – a spear

Śalākā – a porcupine, twig, splinter

Śālmālī – the red cotton-silk tree whose bark is covered with thorns (Apte, 1965)

What about the root words? Root words are different than words because they are not actually spoken while communicating. In spite of this, root words also show the above tendency of sound-meaning pairing. This probably means new root words were created consciously by



Same case is seen for the many meanings of √gal and its kindred roots. When we eat something we devour it or engulf it. In other words we grasp it or seize it. These kindred roots all have the meaning: to capture, grasp or seize. One root among them √gras has retained both the meanings – swallowing and seizing - giving more credential to the semantic connections of these roots with the primary meaning of eating.

√गल्, √गृ - swallow → √gras-swallow, seize → √grah-seize, grasp → grbh-grasping, holding → √grdh-covet, long for. The connection between grabbing and coveting or desiring for the root √grdh is not hard to see.

From seizing/engulfing comes another meaning to cover or to hide.

A root having the meaning to hide, to cover (√guh) emerged from the above root cluster, most probably from the root √grah, being closest in form compared to other roots. The root √guh then gave rise to its own kindred roots.

√guh – to hide, cover → √gudh – to cover → √gup – to conceal, protect → √gunṭh – to enclose, envelope → √guṇḍ - to envelope, protect → √guḍ - to protect → √ghuḍ - to protect (Apte, 1965)

- c. The root √dṛ comes from the sound of tearing as we have seen above. All its related roots, i.e. which have same initial consonant have meanings related to tearing. When we tear something we divide it into two, we cut it, split it, to divide, and also sometimes we tear an object by stretching it from both sides.

√दृ-दर → √दल् (dal) – to tear, cut, break; √drāḍ - to split, divide; √drāgh – to stretch, lengthen, to exert oneself. From exerting (√drāgh) further arise the roots √drā – to run, sleep; √drai – to sleep; √dram – to run.

√dā – to give, grant or share. A share is offered by tearing a part from the whole. If this appears a mere conjecture, consider the root √bhaj which has preserved both the meanings viz. to split, divide and also to share. Hence the grouping of the root √dā with the above roots is justified.

Now the association of biting and tearing is not difficult. Carnivorous animals like wolf tear their prey or food by biting. Even the household dog tears things. So the root √dañś – to bite, sting gets related to above roots.

Where does the root √dah – to burn, to pain, fit in this? Snake, scorpion bites are known to cause burning sensation and extreme pain in the body of a person, due to the venom (*ScienceDaily*, 2011). Same with insects like ants and bees. One species of ant even has the name fire ant, because of the burning sensation of its bite. This association of burning to biting and stinging connects the root √dah to √dañś (Apte, 1965).

- d. Just like √dṛ gives rise to its kindred roots meaning splitting, breaking etc., similarly √tru or √truṭ also give rise to kindred roots.

√truṭ - to cut, break → √tuḍ - to split, break, hurt → √tud – to strike, hurt, pain → √tuṭ - to hurt, injure → √takṣ – to cut, split and to carve and √tubh, √tuj, √tṛd – to kill, hurt (Apte, 1965)

- e. Roaring and pride is often associated with each other. A person may often puff up his chest like a roaring lion when he is proud of himself. A family of lions is called a 'pride'.

So, the association of √garj – to roar and √garv – to be proud (Apte, 1965) is not farfetched.

- f. From √चम् (cam) – to eat, drink come roots with similar meanings.

√छम् (cham) – to eat, consume; √चष् (caṣ) - to eat; √car – to eat, graze and also to walk, probably because grazing animals like cows walk while grazing. √carv – to chew, eat.

From √car comes √cal – to walk, move, and shake. Here the meaning related to eating is lost and only the meanings related to walking, moving is preserved. √canc – to move, shake.

From eating, devouring comes a related meaning to cover, conceal, or hide. Similar phenomenon is seen above (no. 2). √chad – to cover, hide. Chatra – umbrella. Chāyā – shadow. Chadman – external covering, disguise, fraud, deceit (Apte, 1965).

### B. Rhyming

Other than similar words having similar meanings, another peculiarity seen in Sanskrit is of rhyming words with exact same or similar meanings. For eg: indu/bindu – drop or a point, nakt/aktā – night, dyut/jyut – shine or illuminate, valka/śalka – fish scale or tree bark or covering, ad/khād/svad – to eat (Apte, 1965). A similar phenomenon is seen in root words examples of which are given below.

- a. The word √dul rhymes with √lul and both have the same meaning: to shake to and fro. From this root √dul, further arises the root √dhū – to shake, agitate, and tremble (Apte, 1965).
- b. From √चुप्सु – to suck. √शुष्सु – dessicate, take moisture out. śuṣka – dry. Eventually related to heat √उप्सु - to burn uṣṇatā – heat (Apte, 1965). So a gradual and coherent flow of meaning is seen:
- a. to suck → to take moisture out, dry → to burn, heat.
- c. From √śam – to be calm, quiet → √ram – to rest, rejoice, enjoy → √kṣam – to be quiet, patient, wait and hence also to endure, put up with and ultimately also to forgive, pardon (Apte, 1965).
- d. From √gras – to swallow, devour → √ghas – consume, eat (Apte, 1965)
- e. Compare √garj – to sound, roar with √gaj - to sound, roar; √ganj – to sound; √guj – to sound inarticulately, to hum, buzz; gunja – humming (Apte, 1965).

### Importance in Education Policy

Since the discovery of Sanskrit by the western world and its relation to the European languages, the theory has been prominent that Sanskrit has its origin in Europe. Nomadic pastoralists from Europe arrived into India on horse and chariots and destroyed the existing Dravidian culture and civilization. They even imposed their language Sanskrit onto natives and forced them to abandon their own language. According to western scholars, the Rig-Veda is nothing but poems praising gods, composed by nomadic people. This unscientific theory is called as the Aryan Invasion theory.

This theory was abandoned long time back due to lack of proof, but the western scholars haven't abandoned the basic idea. Now they have come up with a new unscientific theory

known as Aryan Migration theory, which states that instead of invasion the Aryans peacefully migrated into India but still managed to convert the masses here, who were advanced compared to them.

The whole basis of this idea was that Rig-Veda mentions horses and chariots and in India there are no archaeological finds of horses or chariots until 1500 bce, but they are there in Europe before that. However, archaeological facts are not permanent. They change according to new findings. Like the new finding of chariot in Sanauli, Uttar Pradesh from 1800-2000 bce (Dua, 2020). So such theories shouldn't depend on archaeological discoveries. They should be independently developed theories which can then be correlated with theories from other fields. What do linguists have to say on this issue? There too, linguists have presupposed that Sanskrit is a daughter language and using that presupposition, have created an imaginary language known as Proto-Indo-European. They have compared cognate words from all the languages like Sanskrit, Latin, Russian, and Hittite and have created words which will be similar to all these languages.

If we take three words from Sanskrit, Hindi and Marathi each, and forget that Sanskrit is the mother language then also we can create a new imaginary proto-word. Basically, it will become an unscientific process because of the presumptions. This is because no Indo-European language has had a clear etymology, at least until now.

The present study will definitely help to counter these claims by providing logical and scientific proof. If we search for the etymology of any Sanskrit word or root, it will be shown in Proto-Indo-European. However, the present study will show the origin of many Sanskrit roots, directly or indirectly, in the sound uttered, and not in PIE.

In addition to this, a major advantage of this work is its help in language learning. If these relationships between roots are taught, Sanskrit will become the **easiest** language to learn in the world.

### Conclusion

What makes Sanskrit unique among other languages is the formation of its roots from onomatopoeia. These roots (which create many words) create more roots by virtue of similarity of sound and meaning. These two things are responsible for making onomatopoeia as the major source of Sanskrit vocabulary even though not all roots are covered here. For other languages onomatopoeic words are small in number. The study will provide new insights to linguists studying sound symbolism and the origin of language. In addition, it will help in giving new or accurate etymology to Sanskrit words. The overwhelming importance of this finding will make Sanskrit the only language in the world where the origin and growth from its source is clearly and transparently visible like a tree sprouting from a seed.

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