

Linguistic Follies of the Subcontinent

Challenging Indo-European Theory of Languages

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Table of Contents

1. What is the language	1
2. The Origin of Language	15
3. Speech/Linguistic Data	31
4. Change in Language	47
5. Creation of Sanskrit Myth and its Perpetuation	64
6. Classification of Languages	86
7. Is Punjabi a Member of the Austroasiatic Family of Languages?	93
Bibliography	122

Chapter 1

What is the language?

Language can be defined as a system of communication signals which can take infinite forms, from speech words to body gestures etc. There are various ways of communication in the entire animal world including the humans. Of course, the language, or speech, is the most effective tool of communication but it is not the only channel. Human language can be expressed in words, as speech or written, or just in signs (sign language)etc.

But if we just limit ourselves to words, written or spoken, they are just specific signals and may not mean anything in themselves. For example, the Punjabi word *jutti* (shoe) has nothing in itself that can reflect its image. If it was so, a Frenchman could also know the meaning of *jutti* without consulting a dictionary. For Punjabi speakers or linguists, its etiology may be a matter of interest, but it cannot help a foreigner to figure out its meanings. Every language is comprised of words, as specific signals, without any known universal rationality behind them. Noam Chomsky finds no logic between a word, as signal, and its definitive meanings. Giving an example, he argues, that word 'London' has no meanings because it can have infinite connotations ¹

Stand-alone words, as signals, have an extremely low use, as far as the inter-personal communication is concerned. Words have to be arranged in a certain order to become a meaningful communication tool. For example, *te sir jutti* (upon head shoe) may not mean anything by itself unless spoken in a specific cultural context or arranged in a better

proper order like sir te jutti (Shoe on head) or jutti te sir (head on shoe). Another example in English may be '*door the locked she*' seems meaningless but '*she locked the door*' is a meaningful expression. So, every language has meaningless standalone words which become meaningful when arranged in a certain order, called grammar.

“So even though grammatical words and elements may not have any meaning of their own, they play a role in the administration of the sentence, and help determine the hierarchy and precise relations between content words.”²

Before going any further, the relationship between words and their ordering is of fundamental importance. It means that it has to be explored as to how a speech group creates words and devises a system of arranging them i.e. emergence of a grammatical structures. If speech came into being at a much earlier stage of the human development—as hunter/gatherer tribes have fully grown languages-- then it can be postulated that a grammatical structure of a speech group would be in place quite early. Furthermore, it has to be determined if this basic grammatical structure can ever change fundamentally. Or the speech group, with changing needs, space and time, keeps on adding or modifying the needed words within the given grammatical structure. If fundamental grammatical structure remains, more or less constant, then it is less likely that one language can be born from another one. More, specifically, if speech groups of India and Europe had their own grammatical structures in place before interfacing with other dominant speech groups, like Latin or Sanskrit, then it will illogical to claim that the intruding foreign languages, even very advanced ones, gave birth X Y Z languages in India and Europe. It is much more likely, depending on the level of their

development, indigenous languages may have to borrow varying number of words and terminology. For example, if Indian indigenous languages were at a much higher stage at their time of interfacing Sanskrit, their borrowing would be much less than the European languages who came into contact with Latin when they were, relatively, at a much backward stage of development. Furthermore, not only the grammatical structures remain constant but also the words assume specific meanings within a speech group.

There is a hot debate among the linguists about the origin of grammar. The evolutionists try to discover the historical process of grammatical constructions of various languages while Noam Chomsky holds that there is a universal grammar (UG), and these systems are hard-wired in every human being.³ It means that there is a shared UG among all languages of the world. Many other linguists who do not even agree with Chomsky's basic thesis, take the words and their arrangement (grammar) as universal phenomenon which can be analyzed in a ahistorical manner.

Grammarians can devise rules and laws of changing forms of words, but they may not be able to find the root causes of such transformations. For example, the root cause of why the word 'go' becomes 'went' in past tense or 'send' becomes 'sent' remains a mystery. Linguist can specify as to what class of words transform into 'nt' in the past tense but it will be very hard to explain why English adopted this convention. In Punjabi and Santhali, the word for 'girl' is '*kuri*' but the words for a boy are very different: *munda* and *kurva* respectively. The Santhali word '*kurva*' is well within the grammatical rules, but Punjabi word *munda* seems random. It is possible that in the ancient past *kurva* was also used for boy in Punjabi as well, but it's a mystery as to when and why it changed to *munda*.⁴ One may find

out some reason for this change in history, but it will still have no linguistic rationale.

In addition, the words' meanings are always culturally specific. For example, in Punjabi, as a part of greeting one may just ask 'kidan' or 'kewin' (how) and the respondent know that he is being asked 'How are things with you or how do you do?'). The American equivalent is 'What's Up', which literally means that "what is upside?". However, in American culture the addressee knows that the question is "What's up with you" or How do you do." Similarly, in the US, if a serving place puts out the notice that 'No shirt, No shoes, No entry' the visitors know that the notice is meant to say 'If you don't wear shirt and shoes then you can't enter'. These examples show that the grammatical order of words can be amended in many ways in varying cultures.

Within the same culture the words can change meanings and connotations by class and gender: the use of words by elite classes may be very different from the lowest strata of population. For example, in Punjabi the educated elite classes may use 'tusin' (you) while the lower strata will be using 'tun' (you). Of course, 'tusin' is plural form of 'tun' but on cultural level both can be used to address a single person. The problem is that 'tun', used by lower strata, is considered being disrespectful by elites. The interesting part is that the 'tun' users may not be even aware of the distinction. Similarly, use of words or speech can be gender specific. Other demographic factors can change the use of words. The inhabitants of inside, walled city of Lahore, have a unique manner in this respect, not found anywhere else.

On a very simple level, the words can be broken into two components, a sound (lexical) and its meanings (semantic).

The grammarians claim that words, as sounds, can be studied as mechanical structures, independent of their meanings. It is claimed that to discover such mechanical structures and processes, there is no need of social or historical context.

“In order to describe a language, one need no historical knowledge whatever; in fact, the observer who allows such knowledge to affect his description, is bound to distort his data” ⁵

Such a view assumes that language is an object or objective phenomenon which can be broken into mechanical parts and understood as an autonomous system. However, some linguists hold that only the sound system of a language can be analyzed mechanically, but similar method cannot be used if language is taken to be embodiment of psychological and cultural expression. But Hans. H. Hocks believes that even such a distinction is meaningless:

“It is to be sure, possible to argue that these ‘obvious’ distinctions between sound change and other linguistic change are meaningless, since ultimately all linguistic activity is psychological or social in nature” ⁶

If the language is not taken to be a mere system of mechanical signaling then its analysis will become much more complex, requiring a new methodology as suggested by Noam Chomsky. Writing a preface for Chomsky’s book ‘Language and Thought’ Ruth Nanda Anshen rightly pointed out that:

“ One...connection between the human psyche and speech is far more subtle and complicated than one

realizes. The other is that language, though it is but not one of the ways by which we communicate, with each other, conveys not only thought but also emotion, so that a merely rational analysis of language will no more explain it than a chemical explanation of a rose will define the rose” ⁷

The speech, as a complex system of communication, cannot be analyzed only through the written materials. The written words represent a limited set of signaling within a specific time and space as described by Bloomfield:

“All writing, in fact, is a relatively recent invention, and has remained, almost to our day, the property of only a chosen few. The effect of writing upon the form and the development of actual speech is very slight” ⁸

The problem with the written language is that it is always written by isolated elites and cannot capture the inner dynamics of speech used by common people. Changing linguistic processes cannot be detected from the written material. The elites written language can self-perpetuate itself for centuries even after it is not left with many speakers as in the case of Sanskrit.

Elaborating on the priority of speech over the written material, Bloomfield writes, quoting August Friedrich Pott (1802-1887):

“..the etymology of speech-form is simply its history, and is obtained by finding the old forms in the same language and the forms in related languages which are divergent variance of the same parent form” ⁹

Most linguists agree with the view that speech form is more authentic and should be taken as the basic data set.

However, the problem is that Sanskrit was always an elite language spoken by a tiny minority and, hence, could not be used as a speech language of the people of the region.

The western linguists' belief that once Sanskrit was a widely spoken language, which got corrupted and its distorted variations replaced it, is baseless. Fact of the matter is that the region, where it was spoken by a minority, had other fully developed languages. Therefore, by taking written Sanskrit, the western linguists are not comparing the old speech with the new one. Whatever position, about the origin, structure or process of language the linguists adhere to, they are playing with the wrong data.

For this study, it is an extremely important point to make a distinction between group speech and its written forms.

Theoretically, most linguists are in agreement with the Bloomfield's distinction between speech and its written forms but in practice their studies have been limited to only the written materials. It is truer in the case of languages of the Indian subcontinent because their written material does not go very far in the past. Many other major world languages have passed through the similar circumstances.

For example, Japanese, Persian and Korean scripts were developed after 10th century coinciding with Punjabi in which Baba Farid (1179-1266) wrote in Arabic script in the 12th century. Countries like Viet Nam used Roman alphabets till the colonization of France.

Given the, generally, agreed upon definition of language, as a complex body of sounds, psychology and culture, it is greatly upsetting that major linguists contradict themselves

in building their own linguistic theories. First and foremost, their theories are built around the lexical without any regard to psychology and culture. If non-lexical aspects of the language are to be factored in, then it has to be recognized that psychology and culture are always changing. Therefore, the ideal language (s) cannot be picked from a certain time and space and apply its constructions as the basic measure of all world languages. But in practice, most linguists have picked out Sanskrit, Latin or Greek to be the mother of all languages. See, how in the following quote Hock has contradicted his own definition of language's link with psychology and culture by idealizing Sanskrit and Latin:

“Consider on the one hand the venerability and perfect structure attributed in the Sanskrit traditions to the language described and regulated by the grammarians, or, the similar position which the classical language of Cacsar and Ciccro held in the tradition of Latin.” ¹⁰

In most cases the “..the language described and regulated by grammarians” ends up as an artificial and abstract structure. Such crafted modules become irrelevant to the actual speech groups and die like Sanskrit and Latin. Despite this fundamental flaw, most of the linguists prefer idealized artificial structures over speech. For example, Nicholas Ostler, adores Sanskrit as he writes:

“It has been recognized throughout [Sanskrit] as an artificial (*samskrta*) language; but if anything, this has increased its status, and its use has come to be seen as a linguistic touchstone for the quality of a text.” ¹¹

Such a perceived perfection of essential languages by the linguists can be upheld if one assumes that:

- (1) Human beings were created with perfect linguistic knowledge and the speakers of the essential languages, Latin or Sanskrit, were the chosen forefather of a large part of the world.
- (2) If creationist theory is replaced by the evolutionary process then the assumption would be that speakers of perfect languages had reached the highest stage of linguistic form.
- (3) If speakers of language can reach the stage of perfection even in ancient times, it can be inferred that linguistic capacity is independent of ever changing socio-economic conditions. Or, the basic linguistic form could be in place before several stages of human development.
- (4) The principles of change can be traced from within the linguistic structures if it is taken to be an inbred human ability, otherwise, it has to be viewed as an interrelated aspect of human evolution.

The first assumption is untenable because if a child is left in a jungle he/she cannot learn any language. Similarly, if a child is placed in a language group different from the native group, he/she will learn the language of the adopted people. The second or third generation of immigrants adopt the language of their new homeland. Therefore, it is beyond any doubt that the capacity to speak is an acquired abilityⁱ. We will not get into the discussion of role of culture in this respect at this point.

The second assumption of achieving speech perfection at an earlier ancient period cannot hold because the mental processes of a much-developed human stage could not be grasped by those so-called perfect

linguistic structures. Furthermore, we have no evidence or there are counter proofs that all the so-called perfect languages were medium of speech in the era of their zenith. For example, we know for fact that Sanskrit was not a medium of speech of bulk of the population at Panini's time.

By Panini's time the Aryans, Sanskrit speakers, had just spent less than a thousand years in Punjab, a north western region of the old Harappa civilization, and most indigenous people had no clues to the language of newly arrived group. Furthermore, following Panini's era, the region was continuously invaded by foreigners like Persians, Greek, Saka, Kushan and Huns who had their own speech languages. This means that Sanskrit speakers were in no position to impose their language on the indigenous communities. In addition, Buddhism had a sway in the region for several centuries and, starting from its founder Buddha, Sanskrit was not used for communication. By the time of Emperor Ashoka (268 to 232 BCE) the official inscriptions are found in local Prakrit, Greek and Sanskrit. Therefore, it is evident that Sanskrit was not the medium of speech of the region.

The third assumption does not hold because Sanskrit, itself, had fundamentally changed by Panini's time. The language of Rigveda, the first scripture created around 1200 BC in Punjab, is very different from Panini's Sanskrit. By Panini's time huge amount of vocabulary had been borrowed from the indigenous people's speech. As the Aryans went beyond the pastoral stage, they had to borrow the vocabulary needed for agricultural processes and commerce. Therefore, one

can conclude that Sanskrit was also an evolved language rather than being perfect at any stage. It has to be seen if Sanskrit had a perfect basic structure before its evolutionary form used by Panini.

If we view the chronology of linguistic research, it seems, that it started after the European scholars were exposed to Panini's grammar in 18th century. It was perceived that Panini had laid out the fundamental rules to dissect the languages. In the following periods many scholars concentrated on finding out the very basic units of language, their arrangements and the way these units transform into different languages and change with time. One can categorize such work into following categories:

1. The language was taken to be an autonomous unit which can be dissected into smallest particles and the linguist rules were constructed to study their behavior. Strangely enough, this approach combined the creationist view with laws of physical sciences. It means that language was taken to be a definitive phenomenon of nature like all other physical objects, and linguistic rules, laws or principles were laid down just like the way physical sciences (physics, chemistry etc.) do. The main focus was to discover the rules like physics' law of motion or gravity. In this way, the grammarians sought to explain the temporal change from within the linguistic structures.
2. A large section of the linguists who did not take the creationist view and apparently embraced the evolutionary process, took the essential languages of a certain period and built a whole structure of

rules around them. They interpreted the prior and later historical process of languages through the rules of essential languages of certain fixed point of time. For example, in the case of Indian subcontinent they choose Vedic literature, Panini and Patanjali's grammar, along with a couple of plays and characterized the entire set of regional languages through them. This methodology was adopted on the assumption that either these languages had no prior structure of their own, prior to induction of Sanskrit, or their foundations were overturned/resettled by Sanskrit. However, the laws of overturning/resettling were not established.

3. A group of linguists collected primary data from different tribal and other communities but did not come up with any new paradigm and kept on applying the rules derived from essential languages because of their training in them.

Basing their theories on idealized and artificial linguistic structures, most linguists have developed a narrative that most European languages emerged from "vulgar Latin" and North Indian languages are the polluted forms of Sanskrit. Implicitly, it is assumed that European had no language before Latin and Punjab was languageless before Aryans brought Sanskrit. Another assumption is that Latin and Sanskrit embody the ideal characteristics of languages, including the psychological and cultural ingredients. Fact of the matter is that both Europe and Punjab had their own languages long before intrusion of Latin and Sanskrit. There are some fundamental differences between Latin's use in Europe and Sanskrit's relevance to Indian society but in making them mothers of Euro-Indian languages, many blunders are made.

Sanskrit, in particular, has been handed down to linguists in written form devoid of any approximation to speech. Sanskrit religious scriptures, along with Panini and Patanjali's grammars, represent a tiny minority of religious priests. Such writings do not represent the 'psychology and culture' of the speech of that region. Furthermore, such written materials are not even representative of early available linguistic/speech data. The earliest written inscription of Ashoka's period is found in Prakrit and not in Sanskrit. As a matter of fact, Sanskrit inscriptions are not found many centuries after Ashoka's period. Therefore, the Sanskrit written material would have been created in a much later period, may be in Gupta Dynasty's time.

Both, Sanskrit and Latin, are adored for their 'perfect' structures without realizing that such quality is attained because of their very narrow base. Such mechanically constructed modules do not grasp the complexity of speech even of that era. If the purpose of science of linguistics is to analyze real speech, then both languages are very poor choice. If Latin would have been, not perfect but even an appropriate language of communication, Martin Luther (1483-1546), and some before him, would not have translated the Bible in, what linguists call vulgarized form of Latin, German. If our linguists had been writing during Martin Luther's time, the religious establishment of Rome would have enough material to hang him for writing scripture in a non-Latin language. Similarly, Buddha and his followers used Pali and other Prakrit instead of Sanskrit. Many Buddhist writings were available to our linguists but those were not perfect enough to be considered as the base line of linguistic theories.

Endnotes:

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7. Chomsky, Language and Thought, Preface
8. Bloomfield, p 13
9. Ibid p 15
10. Hock, p 627
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The Origin of Language

It is likely that the creationist theory may be the oldest description of the origin of language. According to this theory the creator of the universe endowed the humans with speech at the time of creation. Not only common-people but many modern linguists, inadvertently, believe that the Creator given speech was perfect but got polluted by humans in the course of time. Contrary to this theory, most linguists hold that speech came into being through the evolutionary process of humans but it is hotly debated that how this process worked. A large number of linguists, adhering to the biological evolution of humans, argue that the physical system of producing sounds, and enabler of organizing these sounds, called the brain, took hundreds of thousands of years to evolve. However, Noam Chomsky challenged this gradualist view and asserted that ability of speech was a result of random mutation and, hence, innate in humans.¹

In a way, Chomsky's theory seems to be akin to creationist approach but there is a fundamental difference between both positions. The creationist theory is 'creator'- specific and there is no consensus on one single revealed language: For Muslims, it is Arabic; for Hindus it may be Sanskrit, and for Christians it is Latin. All the creationists believe that only their language is revealed, and others' are born out of defiance or ignorance.

However, Chomsky's view is that the essential ability of speech is innate and universal. With the advanced technology the universal characteristics or Universal Grammar (UG) can be digitized as the computers have

done it using binary system. In this way, the creationist theory is extremely discriminatory (several revealed languages) while Chomsky's approach is derived from universal innate sharing. It has to be seen that if and when Chomsky's conceptual framework can be translated into concrete scientific laws. It is just like the theory of gravity, as a conceptual discovery, which has yielded many scientific laws and applications in Physics and other sciences.

Following Noam Chomsky, Yuval Noah Harari, the writer of bestselling book "Sapiens: A Brief History of Humankind" writes: "[t]he most commonly believed theory argues that accidental genetic mutations changed the inner wiring of the brain of Sapiens enabling them to think in unprecedented ways and to communicate using an altogether new type of language." ²

Having identified the advent "to think in unprecedented ways to communicate" as a result of "accidental genetic mutations," Harari follows Rubin Dunbar's theory that asserts:

"The conventional view is that language evolved to enable males to do things like co-ordinate hunts more effectively. This is the 'there's a herd of bison by the lake' view of language. An alternative view might be that language evolved to enable the exchange of highfalutin stories about the supernatural or the tribe's origin. The hypothesis I am proposing is diametrically opposed to the ideas like these, which formally or informally have dominated everyone's thinking in disciplines from anthropology to linguistics and paleontology, In a nutshell, I am suggesting that language evolved to allow us to gossip" ³

To assert that human thinking originated from random or accidental ‘genetic mutation’, and then claiming ‘gossiping’ as the basic motivation of using language is reverting back to creationist theory. This approach is negation of scientific method and presents totally ahistorical perspective. It may be true that biological sciences may not yet explain the evolutionary steps that led to qualitative change in the human mind/thinking processes but calling it ‘accidental’ does not add much to our knowledge. To identify ‘gossiping’ as the basic cause of origin of language is also an offshoot of ‘accidental mutations’ hypothesis.⁴ It is quite ridiculous to say that humans accidentally learned thinking and meaningful sound making (speech) ability for gossiping. It seems that the basic problem lies in visualizing and describing the hunter/gatherers mode of life.

Writers like Harari read history as a series of actions that happened accidentally or by humans choices and not as sequences of events that took place during the struggle of satisfying unavoidable universal human needs. For Harari, hunting/gathering was an ideal stage for humans in which they could have lived leisurely, working a few hours a week: To undertake agriculture was a big human mistake that led to long working days and nights, according to him. Human beings were better off at the hunting/gathering stage, he argues.⁵

From the Harari-like descriptions it appears that human beings were on pleasure imperial/aristocracy like excursion/hunting trips where game was pre-arranged. They hunted for a few hours and gossiped about each other most of the time. This is a gross misrepresentation of human conditions at hunting gathering stage. If

hunting/gathering was so easy and comfortable, humans would not have undertaken most difficult routes to inhospitable places and wandered thousands of miles into unseen lands. They would have stayed at one place, enjoyed gossiping and procreating, multiplying their numbers to expand social circles.

A careful reading of history shows that human conditions were very precarious at the hunting/gathering stage. For this reason, they had to remain on the move and stay in constant danger of natural calamities and other neighborhood fearsome creatures. They were constantly vulnerable to hunger, disease and other predators. This is why their numbers did not increase significantly. Living for hundreds of thousands of years in such death fields, they found out ways to domesticate animals and plants and preferred to switch to a settled life. The very fact that they never went back to hunting/gathering mode of life shows that new mode of living, whatever it entailed, was better than the previous one.

The same can be said about the origin and evolution of the language. Use and ordering of sounds (words) also arose from concrete conditions that the humans faced at the early stages. They were forced to create sound signals for survival in extremely dangerous surroundings and not for gossiping. If the apparent need for human gossiping is because of humans being 'social animals', then the question is what distinguishes humans from other species to be categorized as 'social' but lacking any form of higher language? If living in groups is the only qualification for being a 'social animal' then many other species like ants and bees should be gossiping too.

At the very early stages humans did not have much to talk about. Their interpersonal relations were not very complex, as compared to later stages, and they had almost no capacity to create abstract ideas. Even in old agrarian societies, that survived until the 1960s in Punjab, people had very little to talk about: they knew a few jokes and very limited ideas to exchange. Even at the agricultural stage, they were still part of the natural world in many ways. In continuation of the hunting/gathering stage they still believed that language is a shared property of nature: they talked to animals like friends/assistants/unruly offspring and expected responses from them. They conversed with invisible surrounding entities (local ghosts, witches, djinns etc.) as if their speech was understood by them. In short, gossiping was very limited in village communities and, it must have been none or negligible at the hunting/gathering stage.

As for as the evolutionary theories are concerned Richard Nordquist has summarized them under following five headings. ⁶

The Bow-Wow Theory: According to this theory, language began when our ancestors started imitating the natural sounds around them. The first speech was onomatopoeic—marked by echoic words such as *moo*, *meow*, *splash*, *cuckoo*, and *bang*.

The Ding-Dong Theory: This theory, favored by Plato and Pythagoras, maintains that speech arose in response to the essential qualities of objects in the environment. The original sounds people made were supposedly in harmony with the world around them.

The La-La Theory: The Danish linguist Otto Jespersen suggested that language may have developed from sounds associated with love, play, and (especially) song.

The Pooh-Pooh Theory: This theory holds that speech began with interjections—spontaneous cries of pain ("Ouch!"), surprise ("Oh!"), and other emotions ("Yabba dabba do!").

The Yo-He-Ho Theory: According to this theory, language evolved from the grunts, groans, and snorts evoked by heavy physical labor.

The author has pointed out the major defects of these theories but there is no consensus among the experts as to how the language was born. But does this mean that *all* questions about the origin of language are unanswerable? I argue that this question can be better answered now than any time in the past. As Christine Kenneally has pointed out that:

“Advances in the biology of language, artificial intelligence, genetics, animal cognition and anthropology in the late twentieth century have shown scientists how previously uncharted mental and neural territory can now be explored” ⁷

It seems that numerous dynamics of language are more known now than in the previous times. Nevertheless, a mega-theory or new paradigm, for overall human development, that encompasses language as a subset, remains to be discovered. Up until now new findings are being made within the Darwinian paradigm or reverting back to creationism in the garb of ‘random mutation’ etc. But if human history is viewed in the long-run, most of the

intellectual articulations lag behind technological revolutions: the formulations of great theoretical paradigms of 19th century, including theory of evolution, emerged after a century of industrial revolution. The contemporary technological revolution is still 40 years young and its potential to give birth to yet-to-be-imagined theoretical paradigms is still in the making.

Whatever the future, most people would agree that there was a need behind the origin of the language i.e. to communicate more effectively. Different animals, and may be other creatures, have their specific ways of communication too. From the ants and bees to elephant, behavior of all animals indicate that their movements are organized in certain manners which assumes a communication between members of the group. Humans have also evolved from the animal world and therefore, their earliest communication skills should have been closer to what we observe from non-human creatures.

Most of the animals emanate specific sounds for special occasions. Most importantly, animal sounds for alarming the group about an oncoming danger, or to gather/retrieve the lost members, and for pleasure and satisfaction, are distinguishable. Primitive humans could have animal-like methods of communication. Each communication episode involves a specific signal which can be specific movements of the body parts, sounds or even invisible means that we find among creatures like bees and ants. It appears that creatures with more evolved systems use sounds as signals to communicate with their respective groups. Humans have the most advanced biological sound system, along with enhanced brain, to make signals. Using brain power, humans can communicate through sign language as well. However, the use of sounds or words is the most economic,

effective and far-reaching tool of communication. Use of words or language liberates the humans from limits of space and time.

The brain and biological vocal system could have taken hundreds of centuries to develop. Biologists have established comprehensive theories about the process of the evolution of human brain size and its vocal system: essential organs of sound-making, face/mouth, tongue, teeth, lips etc. have taken their present shape in thousands of years. Researchers have tried to explain how the brain and vocal system were synchronized and how they affected each other in the evolutionary processes.⁸ Now, the human brain, as compared to other animals, is the largest in size as compare to total body mass. Furthermore, the human brain consumes highest proportion of energy that the body produces.¹ In short, enhancement of human brain size and its functionality became the major foundation for thinking processes and organizing the sound system.

Various mechanisms have been suggested as to how different sounds became signals of specific objects at the initial stages. Linguists have tried to explain the sound-signal relationship through animal cries to babies suckling. Even at this developed stage, human child is born with limited capacity for sound making. Universally, accepted elementary sounds like *ma*, *pa*, *ba*, *ka* mostly involves only the lips because new born have no teeth and almost no knowledge of maneuvering the tongue. As a matter of fact, the babies' sensory ability is limited to the lips for several months. Therefore, sounds produced in suckling may be the basis for sound-signaling coordination. For example, *Ma*, *Peo*, *Bha/bhara*, *Bhain* (mother, father, brother and sister) are learnt first. The word for female breasts, *Mamma* in

Punjabi and Latin simultaneously (repetition of *ma*), prove the point that speech empowerment may have been initiated by suckling of babies. The mothers hint to water and other liquids as ‘mum’ to attract the attention of the babies. Therefore, the basic cognates are *ba/bha* or *paa* which at a later stage are transformed into *bhara* or *bhai*. Both, *Bhara* and *bhai*, involve more complicated vocal operettas and another word for it, *ver*, requires use of teeth and tongue maneuvering. Therefore, it is more appropriate, for the comparison of different languages to take the layer of language that maintains the simplest cognate like *ba* and *pa* instead of *bhara* and *bhai*.

However, after the very initial stages of development, human children pick up the speech of their group so rapidly that it has prompted Chomsky to say that learning of thousands of words and their ordering (grammar) cannot be explained by biology and, therefore, it must be an innate ability.⁹ In other words, the way human speech groups combine sound-signals (words) and their arrangements (grammar) is almost random. Furthermore, why an object is assigned different sounds signals in varying speech groups is very hard to explain. For example, the English sound or word for water in Punjabi is called *pani* (Punjabi), *jal*, *neer* (Sanskrit), *taneer* (Tamil), *maa* (Arabic), *aab* (Persian) *shui* (Chinese) which has no apparent rationale for being different from each other. But total collection of irrational sounds (words) of different languages may have their own assumed rules and laws (grammar). It creates the impression in every speech group that their language is purely logical while the reality is that there is no universal logic behind them unless one starts believing in Chomsky’s UG.

However, within a speech group, the process of adding/modifying words and mechanism of change, is an essential subject matter for linguists. First of all, we should examine the process of word addition. The question is whether human mind, randomly and continually, keeps generating words or whether new sound signals are created only when a specific need arises. If the words are created/generated in the historical process, then time and space become essential. In a practical sense, the question is what kind of words humans needed when they were living at the food gathering or hunting stage? Would their mind generate words for agricultural appliances (like plough etc.) or computers at that stage? I remember my father telling us that when the railway trains (in 1920s) came to our area, the rumor was that their babies will come later. Since word 'car' or its image was not known to the community, they envisioned it as babies of trains.

It means that as the speech groups move up from hunting/gathering to, animal domestication, herd breeding and later on to agricultural stages, humans keep adding new words to fulfill new needs. Therefore, it can be inferred that a speech group which has reached a matured agricultural production level, would have much vaster vocabulary than those who are still at hunting or pastoral stages. This is a fundamental point which will play a key role in the discussion of taxonym of Indian languages.

Naturally, the new words are added within a specific grammar which, most probably, is shaped at much earlier stages of the linguistic evolution. The question is, that at a certain stage, should we take the language as a finished product, treat it as a thing-in-itself and investigate it as an objective phenomenon the way physical sciences treat their

subject matter. If such an approach is adopted, then everything will be described through the grammatical rules deduced from the speech data of a certain time horizon. This is the linguists' preferred methodology and they try to describe the changes of speech through these, apparently, scientific laws.

In the zeal of becoming scientific, the linguists and grammarians have started believing that they have discovered Physics like laws. The fact of the matter is that they are oblivious to the basic difference of physical and linguistic phenomena. Gravity is a universally fixed phenomenon while linguistic variations are infinite. Up to now, most of the linguistic rules are derived from a limited data set of Indo-European languages. It is possible, as suggested by Noam Chomsky, that UG is discoverable and applicable to every speech form or group. Until then, the universality of linguistic rules and laws is just a pretense.

There is another essential aspect of the evolution of languages. Can the study of grammatical structure and basic linguistic mechanism help to take the language forward or such studies are just static expositions, enumeration or descriptions of given speech data? This is an important distinction between natural sciences and linguistics. The discovery of new laws of physics not only leads to fresh understanding of the universe but also help the production of new goods and implements affecting the concrete human life. They can change the entire pattern of human life and take them to a yet unknown levels and direction. The study of grammar and linguistics does not play such a pro-active role in human life at a larger scale.

Let's describe this through a real-life example. The study of physics may have been necessary for Albert Einstein to

make a major breakthrough in that science but is the study of grammar or linguistics necessary for intellectual discourse or manifestations of creative thinking? Did contribution to philosophy, literature and other social sciences required knowledge of grammar and linguistics? Probably not. Other historical developments, changes in social or personal life may be relevant to understanding the creative process but not the grammar and linguistics. Socrates, Shakespeare or Waris Shah, may or may not, have any knowledge of grammar and linguistics: grammar and linguistics is post-facto analysis of what is written or spoken. Grammar and linguistics are the last thing societies need for adding required vocabulary or modification of the existing one. For example, with the induction of new technology, the words like *email* or *emailing* are neither created by grammarians nor users of these words have consulted them.

The creative human impulse and socio-economic needs play a key role in the use of language. In many less developed countries, most of the repairing work of advanced equipment and appliances is done by non-schooled technicians and labors. They cannot read any written manual and yet they do the job very well. In which language do they learn and pass-on technical know-how to illiterate learners? Mostly in their mother-tongue. They may borrow the names of different parts of a machine from English (orally) and create a whole language in their mother tongue to explain the mechanics and functioning of complicated processes. Such a language remains unwritten though it plays an absolutely indispensable role in society. On the contrary, the language used for intellectual discourse, the main subject matter of grammarians and linguists, may be totally irrelevant or marginal. Grammars

written by Panini and Patanjali, did not lead to any creative writings even for the intellectual discourse: they just described mechanics of an artificial language at a certain point in history.

Origin of Language in the Subcontinent

Meharghar and Harappa are the first known civilizations in the subcontinent but there is no known source of the origin and evolution of language(s) in them.¹⁰ Neither the script of Harappa's writings have been deciphered nor the linguists have tried to retrieve data about speech of pre-Aryan populations: It has been generally assumed that Sanskrit, the Aryan's speech, is the original language of this area. However, after the excavations of dozens of sites in Punjab, Sindh, Haryana, Rajasthan and Gujrat, it is abundantly clear that an advanced civilization existed in this area for about 5,000 years before the pastoral Aryans entered in Punjab. Archeological and genetic research has established a believable chronology about the inhabitants of this area.

Research has shown that a human group started emigrating from Africa about 70,000 BC and reached this area in 5,000 years, around 65,000 BC. Not much is known about these people until 7000 BCE. A French research team, led by French Jean-François Jarrige and Catherine Jarrige, excavated Meharghar (Baluchistan, Pakistan) in 1997-2000 and established that this was the first settlement in the subcontinent which existed at around 7,000 BCE.¹¹ There is no known cause of its demise but it reemerged in form of Harappa Civilization at about 5,000 BCE. The remains of Harappa Civilization have shown that it was quite advanced, with large well-planned cities, surplus producing agriculture, domesticated animals and commercially linkages with Mesopotamia. If we look through the comparative method i.e. the languages approximately

corresponding with stages of humans' socio-economic stages, then the people of Harappa Civilization should have had quite an advanced speech system. Because the Harappa script has not been deciphered, we can call this language Maluha, which is what Mesopotamians called the inhabitants of the Harappa Valley. However, the acceptance or rejection of this postulate depends on the linguistic theory one proports.

The point is that if we are looking for the origin and evolution of language in North-West India, Punjab and Sindh-the home for Harappa Civilization--that emerged about 9,000 years back- we should depend on essential cognates of that era and not from a language, Sanskrit, which made its way to this area just about 3500 years back. By the time Sanskrit, a limited Indo-European language of pastoral people, reached Punjab the indigenous populations have had an advanced language created by agrarian and commercial societies

The Sanskrit speaking Aryans came to the area, which is called Punjab, in 1300-1500-BCE. Before the Harappa excavation the western linguists and philosophers based their analysis on Hindu scriptures only. Practically, they implicitly assumed that life and language in the subcontinent began its evolution in 1300-1500 BCE. However, after the excavation of Harappa and Mohinjodaro it was revealed that an advanced civilization had existed there for thousands of years. The indigenous people, the descendants of Harappa civilization fought with Sanskrit-speakers for many centuries. . This fact is attested by the Vedic literature. It will be absolutely absurd to assume that people with such a long civilizational history had no language of their own. So, let us explore that what

would have happened when the newcomers faced the indigenous population.

The first possibility is that speakers of indigenous language(s) vanished into a thin air and the Sanskrit speakers built a new civilization from a scratch. They were pastoral people and they discovered agrarian society by themselves and their language kept on evolving in this process. Second possibility is that indigenous people were conquered, and they were forced to embrace Sanskrit. However, since the conquered indigenous people could not master the new language, they started mixing their own words and corrupted Sanskrit, giving birth to other Indian languages. This has been the prevailing view for the last two centuries.

The third possibility is that the indigenous people, being advanced in agricultural and manufacturing know-how, kept on using their tongue but, in the process, borrowed some words from the conquering Sanskrit speakers. But, pastoral Sanskrit speakers, being extremely wanting for vocabulary, beyond animal breeding, heavily borrowed from indigenous tongues and their language was transformed in many respects.

In this general historical backdrop, it seems more probable that both sets of languages co-existed with ongoing borrowing from each other. It is least likely that either side could annihilate the basic linguistic structure of the other. Since Sanskrit and other indigenous languages co-existed the borrowing was natural. Therefore, it will be interesting to explore the dynamics of borrowing between both languages, but historical facts should be kept in mind:

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Speech/Linguistic Data

Before undertaking scientific analysis, one must critically evaluate the quality of data. Most linguists concede that language is not just an assemblage of words, but it also involves human psychology and culture. Furthermore, it has been acknowledged that written material is just a small subset of human speech. Noam Chomsky has broadened the scope of language by presenting it as a reflection of human consciousness at the deeper level.¹¹ Despite such broadened definitions of language, most ‘Indo-European’ linguists have built their theories on ancient written data of Latin and Sanskrit, which was limited. It has been assumed that these languages reached the stage of perfection before 300 BC. According to this theory, all other European or Indian languages are ‘vulgar’ or polluted forms of these languages. Therefore, the tendency has been to look for high ‘quality of text.’

By taking a view that ‘quality of a text’ is the ‘linguistic touchstone’² it has been assumed that, (1) the linguistic theory should be built on only written material and (2) historical developments changing psychology, culture and overall human consciousness are irrelevant to language. If, by any reasons, the ‘effect of writing’ is ‘slight’ upon the ‘development of actual speech’, as declared by Bloomfield,³ then one must ensure that the data being analyzed is largely comprised of actual speech. However, the problem is that past speech data is by its nature scarce when there were no recording facilities to preserve it. Obviously, one must search for indirect methods.

Indirect methods cannot provide us direct access to the speech data, but they can be used to assess the development stages, and their relative expanse and complexity. Based on historical studies we assume that evolution of language is correlated with general human development. According to this approach, language would have been less developed at the hunting/gathering stage than at agrarian or industrial stages. In other words, with the expansion of economic, social and political processes - the languages expand. The rise of European languages can be viewed as a result of economic, social, and political expansion. There was no major linguistic transformation when most of the Europeans were living in self-contained rural communities. With the rise of commercialism, overseas trade and manufacturing of goods and services the European languages became more competent for the expression of complex ideas.

It can be postulated that economic, social and political development led to the diversification of speech language which led to the emergence of modern European philosophy, literature, and art. This hypothesis can be verified through empirical data by using GDP or per capita income data to study the evolution of European languages. Per Capita GDP of Western Europe 1-2003 ⁴

Year	GDP Per Capita	Percent Change
1	576	0
1000	427	-0.03
1500	771	012
1820	1,202	014
1870	1,960	0.98

1913	3,457	1.33
1950	4,578	0.75
1973	11,417	4.05
2003	19,912	1.87

The table above demonstrates that per capita GDP declined between 1st and 10th century indicating that life in West Europeans lands was languishing in self-contained rural communities and the language stagnated too. One can visualize that limited speech was sufficient for their rural production processes and simple ideology comprised of superstitions sprinkled with some notions of Christianity. Consequently, no notable piece of intellectual expression can be found during this period. However, the doubling of per capita GDP, during 1000-1500 reflects the production processes expanded tremendously leading up to expansion of speech boundaries. In other words, the speech started expressing new processes in different spheres of life. And, it is not a coincidence that people's languages started becoming the medium of higher levels of intellectual discourse. For example, Martin Luther's translation of the Bible was first published in 1522. One thing is clear that Martin Luther, known to be the pioneer of German language, did not use the vulgate Latin translation and, instead used Hebrew and Greek texts: He distinguished himself from his predecessors who had translated from vulgate Latin.⁵ To use an authentic German speech, he visited nearby towns and markets and listened to the people speaking. He wanted to ensure their comprehension by translating as closely as possible to their contemporary language usage. He had to use this method because he knew the fundamental difference between vulgate Latin

and indigenous German. Therefore, to claim that German is changed form of vulgate Latin has no basis.

Similar phenomenon can be traced in the subcontinent where the indigenous languages started becoming medium of intellectual expression after the 10th century when signs of economic expansion emerged. See the table below:

GDP of India in 1990 International Dollars ^{6 7}

Year	GDP	GDP Per Capita	Average GDP Growth	% of World GDP	population	% of World Pop
1	37.75	450	-	32.0	70.0	30.3
1000	33.75	450	0	28.0	72.5	27.15
1500	60.5	550	0.117	24.35	79.0	18.00
1600	74.25	550-782	0.205	22.39	100.0	17.98
1700	90.75	550-719	0.201	24.43	165.0	27.36
1820	111.42	533-580	0.171	16.04	209.0	20.06
1870	134.88	510-533	0.975	12.14	253.0	19.83
1913	204.24	673	0.965	7.47	303.7	16.64
1950	222.22	619	0.228	4.17	359.0	14.11

This table also shows that total and per capita GDP took a great jump between 1500-1800. The data by region and provinces is hard to come by, but we know from history that 16th century was zenith of Mughal empire under Akbar the great and Punjab was witnessing stability and a new economic prosperity. This is the period when the first major Punjabi poets, Guru Nanak, Shah Hussain and Demodar Das, appeared on the horizon. It happened so, that Emperor

Akbar and poet Shah Hussain lived in Lahore, Punjab's capital city, at the same time. Punjabi, as a people's language, was neither a polluted form of Sanskrit nor was it vulgarized Persian. While some Persian words had entered the common speech, the language transcribed into writing was wholly indigenous. A similar development happened in Bengal and other regions in the subcontinent as well. Any one or all of these languages was competent enough to become international languages like English and French if India had colonized the rest of the world. It should be kept in mind that when the Europeans first interfaced with Bengal, it was far ahead in manufacturing than the western world. However, the commercial-industrial revolution in Britain changed the linguistic fortunes as well.

Western European languages expanded fast because of the commercial-industrial revolutions, the emergence of new institutions and colonization of the rest of the world. Notwithstanding the ethical and developmental question, it is clear that English and some other Western European languages attained capability for expressing more complex economic, social and political processes at a higher stage. Furthermore, besides the colonial/imperialist power structure, one of the reasons for spread of English is its ability to express more processes than its competitors because industrial revolution began in England. It has maintained its preferred position because, even after World War II, the English-speaking America has been the leader in creation of new technologies.

It can be inferred from the above discussion that evolution of languages, largely, depends upon the function they play for varying need-based thought processes. It is also clear from this discussion that people's speech data was employed to expand linguistic capacities. In their evolution

that accelerated after 14th-15th centuries, the indigenous European languages may have borrowed heavily from Latin because it was used for administrative and intellectual purposes for a long time in earlier periods. However, there must have been basic indigenous linguistic structures of European languages for which the borrowing was done: it is not the other way around that Europeans took the Latin structure and added indigenous vocabulary to that.

The problem with Sanskrit was very different because, unlike Latin, it was never a speech of any region of the subcontinent beyond the written word. Furthermore, the impact of Sanskrit cannot be compared to a Latin in Europe because Sanskrit wasn't used for administrative functions the way Latin was in Europe and Persian was in the Indian Subcontinent. It is Persian which influenced many subcontinental languages. Leaving aside the quality of data being used to analyze the European languages, one must examine whether Sanskrit data used for analysis by most linguists, represents the speech of the people of its initial homeland, Punjab.

In reality, idealized Sanskrit data sets represent a very narrow elite subject's partial expression (only written) at the pastoral or early agricultural stages. Sanskrit written material is extremely doubtful because no written inscription of this language is found until 1st BCE. . It is also not clear when the data used by Sanskrit linguists was originally created because writing of Vedic scriptures was forbidden in the beginning. In this backdrop, the linguists, in search of idealized mechanical linguistic structures, are free to use such data but they cannot claim to be analyzing the actual human speech and relationship between different languages of India and Europe.

Despite, all the shortcomings, it seems that Sanskrit speech data was considered primary and reliable due to the following reasons:

1. Before uncovering of the Harappa Civilization, the entire Indian Civilization was interpreted through the Hindu scriptures. The established notion was that Sanskrit was the first revealed speech and all other languages were its distorted forms. Therefore, Sanskrit is the only source of the root speech. However, it is astonishing why the Sanskrit myth continued after Harappa findings? Why it was not recognized that, with an advanced agricultural and commercial system, the people of Harappa civilization would have a developed befitting language. Why was it assumed that all the descendants of Harappa evaporated into thin air and speech language began with Aryans?
2. It looks like that domination of Brahmins in the intellectual discourse, until very recently, created the perception that their religious scripture should have been the basis of all other Indian languages. Somehow, the speakers of other indigenous languages were not able to counter the prevailing narrative. In addition, it should be noted that linguistic research is usually undertaken by the educated elite and they can relate to their counterparts in the foreign lands. Its glaring example is Al Biruni who in his book, *Al Hind*, took the Brahmins as major (or only) proponents of Indian civilization.⁸
3. The Indo-European were over-zealous, rather desperate, to find the members of their language

family. Merritt Ruhlen has summarized this tendency in this quote:

“Why we are trying to find relatives for Indo-European? Why is Indo-European given any special attention at all? ...The classifications told us the relationship among various languages. Now, all of a sudden, we are looking for long-lost relatives of Indo-European, and classification, from which language flow, has been largely forgotten. Could the Eurocentric bias be more blatant?”⁹

It is evident that taking Sanskrit data is due to a certain bias. It would have been much more appropriate if Pali and Prakrit data was used if written materials were the only source available. We know that Pali/Prakrit were used by Buddha and his followers because it was closer to the people’s speech. Volumes of written material were available in these languages.

If we take the evolution of languages in a historical perspective, we have to acknowledge that speech of people at an advanced agricultural/commercial stage is much broader than those who are at food gathering/hunting or pastoral stages. Even if one concedes that fundamental grammatical structures are fixed at a much earlier stage i.e. food-gathering, it is hard to reconstruct and discriminate one against the other. On practical level, how can we assume that grammatical structure of the Aryan language was superior to the one spoken by the indigenous population of Punjab. If Sanskrit, despite being the language of pastoral tribes, had an inherent (natural) superiority, then actual ruling elites (Maurya) and popular preachers (Buddhist) should have used Sanskrit instead of indigenous Prakrit—some ancient form of Punjabi.

When Aryans, Sanskrit speakers, started coming to Punjab, they were mostly pastoral males who hated agriculture. Tests have shown that 70-90% of the Indian females share their DNA with the group that entered this region about 65,000 BCE.¹⁰ On the other hand only 40% of Indian male share their DNA with earliest arriving people.¹¹ Aryan-specific tests have also proved that they came, predominantly, as males.¹² The Aryan pastoral tribes successfully conquered and dominated the indigenous population because of having advantage in using horses and spoked-wheel chariots.¹³ It is just like the way European, despite being backward in technology of production in 17th century, were able to dominate the subcontinent due to their superiority in shipping technology.

Notwithstanding the causes of demise of Harappa Civilization, and having been defeated by the Aryans, the indigenous populations kept on cultivation wherever it was possible. Initially, the Aryans hated agriculture and considered it a profession of lowly indigenous people.¹⁴ However, later on they took up agriculture using the labor and know-how of indigenous people. These facts lead to the following observations:¹⁵

1. Since, Aryans came to Punjab, predominantly, as a male group, they used force to grab indigenous women for procreation.
2. Being dominant ruling groups, they used indigenous labor force, in the economic production. As opposed to Aryans, the indigenous people had the experience with agriculture and production of other necessary commodities.

3. The Aryan society was tribal and hence, there were no extensive channels of communications between scattered communities.
4. As the tribal system started crumbling, and new small states propped up, the invasions from North became more frequent. Consequently, the area was ruled by Persian, Greeks, Saka, Kushans, Huns etc. In this backdrop the influence of Sanskrit-speaking elites would have diminished if they had any to start with.
5. At a much latter stage, after the agricultural revolution in Ganga-Jumna valley, the Brahmans became the highest caste who could impose its will on the society.

Given these historical facts, there was a very heavy borrowing of language by the Aryan's language, Sanskrit. The indigenous language may have taken words from Sanskrit but, generally, the mechanism may have worked in the following manner:

1. Since Aryans established their households with forcibly-taken women, it is much less likely that the females would have learnt Sanskrit to run the day-to-day routines and not the other way around. Furthermore, newborn children must have inducted to speaking in their mother-tongue rather than in Sanskrit. If the children were learning a different language, at the early stage of development, then Sanskrit was bound to be their second language. This is just like most modern-day Punjabis, for whom, Urdu has been a second language for a long time. In such cases, the adopted or second languages become mechanically constructed

artificial modules. It can sustain itself for some time but, eventually, most of it become irrelevant for the succeeding generations. Probably, Sanskrit would have gone through similar process: for its new generation, it would have become a mechanically organized language.

Probably, this was the reason that the Aryan ruling elites had developed a 'Gurukul' system to teach Sanskrit and other martial arts to their male heirs.

As a matter of fact, at a later stage, to maintain the purity of language, the Aryan males were forbidden to speak Sanskrit with their wives. It is extremely interesting to note that, in Mahabharat, names of parents of many stalwarts are unknown. For example, the mother of most respected patriarch in Mahabharata, Bisham, is said to be a fairy.

Similarly, fathers of five Pandu brothers are Devas. The reason behind missing name of the parent(s) of highest Aryan elite is that they may have belonged to non-Aryan indigenous people. Such a pretentious Aryan purity was also apparent with regard to language. The bottom line was, take whatever you need from indigenous people but do not acknowledge their existence.

2. To use the indigenous labor force for various economic functions, it is much more likely that the Aryan 'master' class would have to learn some of the workers' tongue to accomplish their ends. It is a common observation that the Urdu/Hindi speaking master class is forced to learn indigenous words of their working classes today. In the Aryan's case, the matter was more acute because only the indigenous people knew the art of agriculture and making of

- other needed goods (by artisans). Therefore, most of the Sanskrit-borrowing may have been due to basic economic needs.
3. Vedic literature and other sources reveal that the Aryans were at the tribal stage at the time of their migration to Punjab. Their language was very simplistic, as it is reflected in Rigveda. Most of the hymns are simple prayers for producing more cattle and offspring. The gods are addressed as humans (personal friends) because the language was not capable of articulating abstract ideas like all-seeing deities. It was just like my father's generation which had no idea of a car, so they described it as a baby-train because that was the only way known to them by which they could create a signal for an unknown thing.
 4. The self-containing tribal system does not help in the process of language propagation and hence the uniformity of languages. This is the reason that there were many more languages in the world at the tribal stage which started dwindling at the agrarian stage with increased uniformity. Aryans must have taken centuries to subdue the indigenous people and their language could not have penetrated much beyond the elite circles. If we go by narrated history, there were indigenous chiefs in the famous battle of Ten Rajas fought on the banks of Ravi River. Similarly, in the Mahabharat war, indigenous rajas were aligned on both sides. It shows that even at a much later stage, when tribalism was giving way to small kingdoms, there were many indigenous states which, naturally, had their own language(s).

5. Around the time of emergence of small kingdoms, invasions from North became a matter of routine. Starting from Persian ruler Dara, up to almost the 4-5th century AD, speakers of different foreign tongues and lands ruled Punjab and surrounding areas. In this setting how could Sanskrit have dominated the scene? The only possible reason could be that since elites were literate in Sanskrit, the foreigner usurpers would have been using them for administrative purposes. However, the Ashoka's inscriptions in Greek show that Sanskrit was not necessary for administrative purposes. During the entire Muslim-rule of seven centuries, the official language was Persian and herds of people from Central Asia, Iran and Afghanistan, migrated to India and filled the administrative positions. Therefore, rulers of Punjab may not have used Sanskrit-speakers as state functionaries. Even in the Maurya Dynasty (322-185 BCE) there is no special reference to Brahmins or Sanskrit. Emperor Ashoka's inscription were written in Prakrit, using Kharosthi, Greek and Brahmi scripts.
6. It was much later, during the Gupta Dynasty (320-550 CE), that Sanskrit gained prominence in Ganga-Jumna valley. Brahmins took the reins of state ideology in their hands during this period and started calling it India's 'Golden Age' because of upsurge of linguistic arts etc. Avoiding the discussion about brutality imposed on women and lower castes (constituting about 90% of population) during this era, it is important to note that Gupta Dynasty had very marginal influence in Punjab. Many historians have pointed out that Punjab was

considered out of the bounds of Aryan society and despised for its secular/liberal traditions. Therefore, it is reiterated that Sanskrit was not a dominating language in Punjab: its use in ritualistic religious ceremonies notwithstanding.

In this historical perspective one can assert that Sanskrit was never a speech language in Punjab where Aryans spent their first several centuries. Most likely, by Panini's time the Sanskrit was used by a small priestly class whose pronunciation and understanding of the language was very poor. Primarily, Panini wrote about grammar and other aspects of Sanskrit to teach the priestly classes. So, the main purpose was to prepare the priests for correct rendering of Vedic scriptures. When the priestly class of Brahmins started dominating the Ganga-Jumna valley, they forbade the lower castes from reading or even hearing Sanskrit. They also issued edicts that pure Aryan males should not speak Sanskrit with their wives either. So, if the 90% population was forbidden from learning or speaking Sanskrit, how can we pretend that it was a speech language of that area?

As Sanskrit was the speech of a small minority, to start with, the ruling Aryan elite borrowed heavily from indigenous speech forms and created an artificial language. If an elite could lay down formal structures (grammar) of such a made-up language, it does not mean that it can be taken as a speech of a region. Conversely, the non-availability of a written grammar of a speech group does not prove that it had no proper language, or it was inferior to an artificially constructed one.

Furthermore, as a result of wholesale borrowing from indigenous languages, Sanskrit ended up with heaps of

disjointed words. Adored for having dozens of words for one object has given 50 synonymous for lotus ¹⁶ -- is not the strength of Sanskrit; it is rather a weakness.

Endnotes

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16. Ostler

Change in Language

Continuous change in languages is a well-established fact, however, there is no consensus on the dynamics of that change. This further proves that linguistic phenomena are very different from the physical world where scientists are usually in agreement on basics. Of course, the adherents to the Newtonian paradigm resisted to embrace the theory of relativity for some time but the new consensus emerged in a short span of time.¹ This does not seem probable about the theories of linguistic change up until now.

Our focus is to explore, mainly, two aspects of change in languages: first, addition/borrowing of words and second, the alteration of grammatical structures.

Addition/borrowing of words can be easily detected by comparing speech data in chronological order. However, the alteration of grammatical structure—if it is possible at all—is relatively difficult without extensive speech data was collected at different periods of history. Such a lack of data compels the linguists to rely on written materials despite the realization that this represents a minor and biased sample of overall speech. Maybe allied data from arts and philosophy (as a reflection of consciousness) can be used to fill in the gaps. For example, if we claim that many Indian languages like Punjabi, are the polluted forms of Sanskrit (a family member of Indo-European), through matching words etc.--then why does the basic musical structure of India share little commonality with Western musical styles? It seems very odd because early Sanskrit data is comprised of hymns which were composed for singing and should match with Europe, supposedly, home to Aryans as well. It may not be a conclusive proof for asserting that Punjabi is

not a polluted form of Sanskrit, but it provides a reasonable cause to challenge the prevailing status-quo.

We can start with the groups that are implicitly closer to the Creationist view. According to this perspective, a few language(s) had achieved perfection at some stage of history in the past but it got polluted in successive generations and various languages emerged in the process. For them Latin, Greek, and Sanskrit were the perfect languages, but they went through a process of deterioration with generational changes. This view was the reflection of the old political order in which a few rulers, courtesans and a small number of writers, mostly state dependent, were writing and setting linguistic standards. Such a small elite could easily protect the linguistic purity, irrespective of the people's changing speech forms.

With the advent of commercialism linguistic purity gave way to ever increasing intervention by the people's languages and new theoretical frameworks evolved. The Neogrammarians were prominent among them who rejected the 'corruption of languages' interpretation. They made a distinction between sound change and all other linguistic alterations. According to Hans Henrich Hock, for Neogrammarians "Certain types of phonetic change, such as dissimilation, metathesis, haplology, were likewise considered to differ in their nature from what the neogrammarians called sound change." In their view, sound change has a long term unobservable, mechanically determined process, that "takes place in gradual, imperceptible steps." ² The other changes are irregular and are affected by psychological and cultural factors.

Words can change, "through both phonetic and semantic shifts" because of human tendency to find easier and

simpler ways, changing cultural fashions or new words replace the old ones for unknown reasons. For example, seeking easier vocal means [p,t,k] has been changed to [b,d,g], at least in the European languages.³ If we try to apply this rule in Punjabi the word for brother, pra and pai, still used in Central and Eastern Punjab, change to bra and bai in Western Punjab and Hindi/Urdu. Up until now the prevalent view is that pra and pai are corrupted form of bra and bai. This development remains is controversial and further research is needed in this respect.

The change of words and expressions, due to psychological reason and fashion, can take the forms, such as, the word ‘neat’ of 1950s changed into ‘cool’ in 1960’s, ‘bad’ in 1970’s ‘rad’ in 1980’s and ‘awesome’ in 1990’s”⁴ On the other hand, the development of new words, without explicit reasons, can be found in the use of word ‘dog’ in English. The original word for ‘dog’ was known which is transformed into ‘hound’. In Old English another word ‘docga’ appeared, which has been shortened to ‘dog’. Through an unexplained process, the ‘hound’ as hunter and ‘dog’ as generalized signal have become common.⁵

John McWhorther has listed five basic reasons of change in language: he writes that “All five of the processes of change –sound change, extension, the evolution of concrete words into pieces of grammar, rebracketing, and semantic change—are as natural to language as photosynthesis is to plants and breathing is to animals.”⁶ It is apparent that process of linguistic change is seldomly explained in historical perspective. The question is whether the basic grammatical structure can change or stay constant while other components alter.

Putting it in more precise terms one can argue that human speech had become functional even during the Stone Age. It is implicit in this postulate that humans had learnt to put words into certain order or grammatical arrangement. But it has to be clarified as to what was the expanse of language at the very early stages. It has been theorized that a cognitive revolution took place, in human history, at around 70,000 BC. Although this is a hypothesis to be substantiated but even if we accept it, the question is what kind of language came into being at that stage?⁷ Confusion has been created by some writers who have argued that language became a tool of myth-creation even at the earliest stages.

This view is not supported by available evidence. For example, in Rigveda (the first Veda written around 1200 BC),⁸ the gods and deities are described in terms, usually, used for human beings. It is a reflection of the human mind's limitation of that period in which they could only think in terms of their immediate surroundings. Gods could not be characterized through far-off abstract notions because human articulation of ideas was bounded by personalization i.e. the relationship with gods could be described in terms of human inter-personal relations. Gods were just like human friends, enemies, generous, vicious and vulnerable to indulge in extremities. Deva Inder, the main god of Aryans, was a drunkard, womanizer and all that a ferocious tribal warrior could be. Aryan poets' imagination could not imagine beyond that. It was much later, after the agrarian revolution and emergence of commerce, that the creation of abstract ideas was possible. The earliest Greek philosopher, Thales, could only think of water being the origin of life. The creation of abstract ideas by Plato and Aristotle came two centuries after him when

Athens had become a commercially rich democratic republic. Rene Desecrate (1596-1650), the father of modern western philosophy, introduced the mind-body duality in 17th Century when Europe had extensive international trade and colonizing the globe. Desecrate was a pioneer in writing philosophy in his mother tongue, French. His initiative for expressing abstract philosophical ideas in French--then a backward language--followed the expansion of economic, political and social horizons of that land.

The mythology of religion or money was not, basically, created by linguistic maneuverings. The idea of One God was inducted in human mind after feudalism had given birth to authoritarian substructures through lords, kings and emperors. Most of the religions depicted the kingdom of heaven as an analogy for describing the emperor's power, through court and administrative systems. Similarly, the myth of money was not created before different commodities, starting from barley⁹ ending up in paper money, were actually used for medium of exchange. Change in concrete conditions led to creation and strengthening of myths for which the appropriate language was constructed by modifications and/or additions of vocabulary. In general, the evolution of ideas and the accompanying languages has been led by changes in concrete condition of real life.

A related important question is whether a speech group maintains its grammatical structure while the rest of the language is evolving. More specifically when a speech group moves from the Stone to the Iron Age and thereafter, does the grammatical structure of its language also undergo a drastic change? It does not seem more likely unless the entire speech group dies or forced to scatter like many

Africans and others were sold into slavery to alien lands. However, if a speech group keeps a semblance of togetherness, like European gypsies, known as Roma, their basic language may absorb the shocks of space and time. In short, changes are made and new signals (words) are coined according to the new needs keeping its grammatical structure intact. For example, hunter/gatherers needed no words for expressing things related to domesticated animals or plants (agriculture). But when the speech group of hunters/gatherers domesticated the animals and plants, they coined or borrowed new set of words. It can be rightfully hypothesized that material, psychological and cultural conditions of a speech group change with such fundamental life alterations. Can these psychological and cultural changes be studied objectively and rules of linguistic change be derived from them? In other words, can we draw such rules that can explain change from 'dogca' to 'dog' in English?

Such a venture should not be dismissed as too far-fetched. We know that most abstract thoughts (magic, superstitions and organized religions etc.) started emerging when humans reached the agrarian stage. An entirely new terminology and vocabulary, relating to emerging faith systems, came into being. Most likely, the new words were created/borrowed or connotations of existing words were changed to fulfill the new needs. In either case, the roots of new vocabulary, most of the times, should be found in the stock that existed before internal/external change or in the language from which they were borrowed. The historical evidence indicates that a speech group, at a higher stage of civilizational development is less likely to borrow from a backward or competing group. It is also observed that if a

speech group's technology and culture stagnates, its language does not register change very much.

Up until now, most of the rules of change have been derived from the European linguistics which may or may not be applicable to North Indian languages if they are not taken to be variations of Sanskrit. Indo-European centric mindset is so pervasive and deepened that even sceptics seek etymology of Punjabi words from Sanskrit. If Sanskrit was not the speech language of Punjab ever, then how can we trace linguistic changes of Punjabi through it? If we go back to Punjabi the word pani (water) and assert that it was changed from dak at certain point in history, as discussed below, the issue is did this change come through Sanskrit? Even if we want to concede that pani may have been derived from Sanskrit apas or Persian ab but how come that this word never entered the Sanskrit vocabulary? Pani means hand in Sanskrit, and its old word apas was, largely, replaced by neer and jal.

We have relatively more reliable data of north Indian languages from 12th Century and specifically from 16th Century onward. Although we do not have direct speech samples of 16th Century Punjabi, we know that written materials of that period are extremely close to the Punjabi speech of the mid-20th Century. Furthermore, the written material of that period is the creation of non-elitist poets which can be taken as proxy for commoners' speech data: the entire elite of that era was using Persian for routine administrative purposes, and for intellectual discourse.

The Change of Words

Usually to trace the change of words, linguists go back to its etymology. However, the issue is where does one search

the etymology of words of Punjabi and other languages in the Indian Subcontinent. Up until now, most of the linguists have been using a sole source, Sanskrit. The problem is that if Sanskrit was never a speech of Punjab or other regions of the subcontinent, then how can it have the roots of words of languages spoken in this area? One may find words of these languages in Sanskrit but that is due to its heavy borrowing. It is logical to argue that Sanskrit will not have the roots of the words that it borrowed in its own language. Therefore, the etymology of Punjabi and other such languages has to be sought in the database of indigenous languages.

To elaborate this point, consider most common word *pani* for water which is used in most of the indigenous languages of northern India. Although it is almost impossible to find its root in Sanskrit, Persian or other European languages but I am sure that some far-fetched etymology can be enforced on it. But if we look at the data of indigenous languages, we find the alternative words like *jal*, *neer* and more intriguing word *dak* in Santhali. The Vedic word for water is *apas*, so *jal* and *neer* (kneer in Tamil) are most likely borrowed ones. However, the Santhali word *dak* does not seem to be associated with *pani*. The word *dak* is also alien to current and classical Punjabi literature.

Nevertheless, the word *pani* is a stand-alone word with hardly any derivations while there are several derivations of *dak* are commonly used in Punjabi. For example, Punjabi words like *dakna* (stopping), *daka* (stoppage in way of flowing water), *dhakan* (lid over liquid containers) or *dakar* (burping) are more likely derivations of *dak*.

Similarly, let us look at the word *hath* (hand). On superficial level it can be associated with English *hand* and

Persian dast. But derivations from hath as hathori (hammer) or hathal (helpless, tied-hands) do not look similar. On the other hand, ti is a very different sounding word for hand in Santhali. Now if one has to find the root of words like tali, tari (clapping with hands) or tal (rhythm) they appear to be derived from Santhali word ti.

The word girl is kuri in Punjabi and Santhali, hardly found in any other North Indian language including Sindhi. However, its masculine form is munda in Punjabi and kurva in Santhali. Feminine and masculine forms in Santhali are identical to Punjabi grammar's gender rules. The Punjabi masculine form munda has no obvious logic behind it because mudi is not a proper Punjabi word for female. Another word ti stands for hand in Santhali, which seems to have no obvious link with Punjabi. However, the Punjabi word tali (clapping), tal (rhythm) or tibna (to slip away) do not seem to have any other origin than ti. It is highly probable that ti was replaced by hath which is almost identical to hast of Sanskrit, also used, as dast, in Persian.

From the examples given above it becomes clear that some ancient words from common Santhali and Punjabi speech group were changed in Punjabi. Despite such change, the entire substratum of the Punjabi language could not be altered. Similarly, one can trace roots from a consolidated data of indigenous languages. Punjabi word rinhna (cooking) cannot be found in Sanskrit but it commonly used in Bengali.

Replacement/Elimination of Languages

In the historical process, thousands of languages have vanished and some have been replaced by conquests. Due

to unavailability of authentic speech data, not much can be said about the replacement/elimination of languages in ancient times. However, the linguistic data, from 16th Century onwards, after the European invasions, is handily available for analysis. We all know that tribal languages of the Americas are replaced with English, Spanish and Portuguese. Similarly, English has been the dominant language in South Africa. Many ex-colonies still use European languages for administrative purposes or as lingua franca. The question is how and why European languages replaced indigenous languages in certain parts of the world and not in others.

European penetration into Americas and the Indian subcontinent started around the same time in the 16th Century. Notwithstanding the initial periods of Portuguese settlement in India and Spanish conquest of Americas, English speaking gained control of North America, Australia and New Zealand and replaced the indigenous languages with their own in these lands. Spaniards conquered South America, and except in Brazil, Spanish uprooted most the local languages. The European penetration and, later on governance of the Indian subcontinent could not replace the indigenous languages: As a matter of fact, most of the local languages prospered under the British rule. Therefore, the obvious conclusion is that the European conquest of the subcontinent and the New World resulted in very different, rather contrary, outcomes. What were the factors behind these wildly different outcomes?

It seems that the production system of the Indian subcontinent was much superior than the Europeans at the time of their interfacing in 16-17th centuries. Up until the

industrial revolution, Europeans were net importers of Indian products.¹⁰ At that point, Europeans had not much to export to India and thus they were paying their imports in silver and gold. It was only after the industrial revolution that India became a finished goods market for the Europeans. The conditions in Americas and Australia were quite the opposite because the indigenous production systems were backward and the Europeans could change the societal fundamentals along with the languages.

The British penetrated the Indian subcontinent, largely, through Bengal. 90% of the Indian exports (constituting 25% of the world trade) were produced in Bengal at that time.¹¹ Being ahead of the European, Bengalis did not allow their language to be extinguished or replaced. It is quite possible that during this period, the English language may have advanced written literature and better linguistic administrative tools, but at speech level Bengali was fully grown and a matured language. It had all the paraphernalia (vocabulary, grammatical structures etc.) to fulfill its linguistic needs. In the process of reaching at the sophisticated level of production, Bengali language would have evolved to the higher level to facilitate increasingly complex communications. Therefore, the British rulers' language could be used for official transactions and indigenous language was still competent enough for all other purposes. This was not a new experience for Bengalis and other regions of India.

Before the British colonization, Persian had been the official and intellectual-discourse language of Bengal and North India for about five to seven centuries. Despite its total linguistic domination, Persian could neither annihilate nor replace the indigenous languages. Of course there was a

heavy borrowing of Persian words but they were mainly restricted to vocabulary needed for administrative functions, judiciary and land revenue system. Persian could not affect the grammatical and other basic structures of these languages. As a matter of fact the Persian vocabulary for said purposes was so entrenched that the British adopted most of it. Most of the new vocabulary introduced by the British could hardly replace the Persian one. For example, the word like sub-district, district or division could not replace the old Persian words tehsil and zilla etc.

While Persian was fully operative on all levels of administration and was also being used for intellectual discourse, indigenous languages started thriving from 15th century onward. A major part of Punjabi classical literature was written between 15th and 18th century while Persian use was at its peak under the Mughal empire. What culminated towards the heights of Punjabi literature in this era is a separate discussion but the point is that it happened under the linguistic domination of Persian. It is interesting to note that within 200 years, traces of Persian vocabulary are found nowhere in the subcontinent except the words related to administrative set-ups, judiciary and land revenue system. As a matter of fact, in 21 Century, the new generation of Punjabi readers, find it difficult to understand 18th century writing where Persian vocabulary is used. In short, Persian vanished from India after it had sway over it for several centuries and indigenous languages have blossomed.

Rewinding back fast, it has to be seen as to what was the language of Punjab before the Persian domination. No hard data is available for the several centuries preceding the induction of Persian in this area. However, some data is

available from Maurya period (323 to 185 BC) to 4th century AD.¹² According to historical evidence, Ashoka's inscriptions were written in Prakrit, using Kharosthi, Greek and Brahmi scripts. It means that the language used was Prakrit—another name for indigenous speech—Brahmi was only one of the three scripts, which was not used in Punjab during that period: Kharosthi was the main script of Punjab till 4th century.

Another historical fact is that, from Maurya period onward, Buddhism was the religion of Punjab until the 7th Century: it is not confirmed but it is claimed that Harshvardhan (606 to 647 CE) was a Buddhist. We know for sure that, in the earlier centuries, Buddha himself and his followers were using Pali and indigenous Prakrits instead of Sanskrit. After the demise of the Maurya dynasty, in 185 BC, Punjab was ruled by Greeks, Saka, Kushan et al. Most famous rulers of this period, Maninder (Greek) and Kanishka (Kushan), were both staunch believers of Buddhism. Now, if from Maurya to Kanishka, along with Buddhist religious elite, no one was using Sanskrit, then a question arises as to whose speech language it was to begin with. If two major functions of that era (administrative and religious) are not performed in Sanskrit then it can be confidently postulated that Sanskrit was not on the horizon of Punjab.

Grammatical writings of Panini and Patanjali do not fill in the historical gaps and prove that Sanskrit was speech language of Punjab or this entire region. The Panini phenomenon has to be reinterpreted in the context of evolution of Aryan elite in Punjab.

Sanskrit got footing on the state level during Gupta period (320-550 CE) but its influence remained within the Ganga-Jamuna valley: Punjab was considered irreligious and out

of bounds of the Aryan society. However, at the peak of their influence, the Brahmanvadis prohibited the lower castes to read Scriptures (by default Sanskrit) and advised the Aryan males to not to speak Sanskrit with their wives. In this manner, for the bulk of people (may be 80% +), Sanskrit was unused and unknown. This creates difficulties for the claim that Sanskrit was a speech language even in the Gupta period.

Almost all the studies, authenticating evolutionary process, agree that in the beginning, while living in trees and caves, sustaining through food gathering or hunting, the human race was occupied with its immediate survival. Therefore, mutual communication, beginning with signs and then through few spoken words must have been interlinked with their immediate needs and that is the way the elementary linguistic structures would have been created. At that level, the primitive human had no concept of nature and the Superbeing, therefore, the hymns and mantras should not be taken as the primary source of origin of languages. Instead, words used for concrete essential necessities should be taken as the primary sets for demarcation of linguistic families. As the human body, edible goods, living arrangement, immediate surroundings (animal world), the earth, water or fire etc. are of immediate concerns, therefore, the words for such things would have been coined first. Given this backdrop, it can be postulated that there may be a unitary origin of all human languages.

Keeping aside the issue of unitary or varying origins of human languages, it can be asserted, a bit confidentially, that evolution of languages was part of concrete changes occurring at various stages of existence. Putting it simply, the vocabulary needed for food-gatherers must have been

more limited than at the stage of domestication of animals and plants. As the domestication of animals and plants was a major breakthrough in human civilization, the contours of language changed dramatically afterwards. Historically, with the induction of agriculture and animal breeding, the realm of abstract notions opened up. However, it should be kept in mind that human languages must have been there before that stage. This is the reason that the vocabulary of stages prior to agriculture/animal breeding is extremely important to find out the word roots and the people who shared them or their users.

Endnote

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Creation of Sanskrit Myth and its Perpetuation

While Sanskrit has been cited as a foundation for most North Indian languages, historical facts disprove this fact partly based on the fact that Sanskrit was never a speech language used in Punjab or any other region in India. As explained earlier, from the 16th Century onward, some Europeans had noted a similarity between Sanskrit and European languages. The myth was finally born in 1786 when Sir William Jones presented his hypothesis in the Asiatic Society of Bengal declaring:

“The Sanskrit language, whatever be its antiquity, is of a wonderful structure; more perfect than the **Greek**, more copious than the **Latin**, and more exquisitely refined than either, yet bearing to both of them a stronger affinity, both in the roots of verbs and the forms of grammar, than could possibly have been produced by accident; so strong indeed, that no philologist could examine them all three, without believing them to have sprung from some common source, which, perhaps, no longer exists”¹

From that period onward, the myth has been sustained and promoted for the next 250 years. Adoring Sir William Jones, for the above given passage, famous linguist Hans Henrick Hock writes:

“On the one hand, it provided one of the most important stimuli for research in comparative Indo-European linguistics, a field which became the most thoroughly investigated of the historical and comparative linguistics and which to the present day has remained the most important source of our

understanding of linguistic change...Jones statement is important also for the fact that for the first time, it offered a very succinct and quite explicit summary of what have turned out to be the basic assumptions and motivation of comparative linguistics; accounting for similarities which cannot be attributed to chance, by the assumption that they are the result of decendency from a common ancestor, i.e., of genetic relationship. ²

If one closely examines Hock's statement, the basic argument is that similarities between Sanskrit and European languages are not accidental because both speech groups are "the result of descendancy from a common ancestor" i.e. of genetic relationship. The latest genetic research has validated this claim i.e. the DNA of Indian Aryans, particularly, individuals from the highest castes, shares a commonality with the European counterparts. However, this research has also shown that a small minority of Indian males share their DNA with European counterparts while the females have no such commonality.³ The shared DNA between minority Indian males and the Europeans, indirectly, proves that considerable section of indigenous population had a different DNA. If one adds the findings of Harappa Civilization to this argument, it becomes clear that the indigenous population, with different DNA, were descendants of a different, much more sophisticated culture and must have their own developed language. The affinity between Indo-Aryans does not prove that Sanskrit is mother of Indian languages, but the myth has been continuously perpetuated. It was based on an imagined history as reflected in the following quote:

"...so, by the beginning of the fifth century BC, the language was spoken in an area extending as far as Bihar, and as far south, perhaps, as the as the Narmada. Sanskrit literature from the period, principally the epic

poems Mahabharata ('Great Bharata') and Ramayana (the coming of Rama) is full of military exploits and conquests.”⁴

To check the veracity of this claim let us look at the concrete evidence of that era. Up until fifth century BC Punjab was still mainly an Aryan homeland and no traces of Sanskrit speech are found in this area. Persian emperor Dara invaded this area in 6th Century BC and introduced Kharosthi script (written right to left) in this region. Tiny kingdoms had propped up in this area when Alexander invaded Punjab in 323 BC and Greek influence was notable in this area up until second century AD. In the meanwhile, Maurya dynasty ruled from 322 BC to 185 BC and the entire area came under the sway of Buddhism. Great emperor Ashoka's inscriptions are found in Prakrit written in Kharosthi, Greek and Brahmi scripts. Buddha himself used Pali instead of Sanskrit. His Sangha in Punjab used indigenous Prakrit for all practical purposes. Greeks captured Punjab after Maurya dynasty. In the meantime a fundamentalist Brahman, Pushyamitra Shunga (185-149 BCE) ruled for 36 years and may have tried to impose Sanskrit but language does not often change in such a short period. In the later periods, ruling Greeks, Saka, Kushans and white Huns had no allegiance to Sanskrit.⁵

Most notable rulers of this era, Maninder (Greek) and Kanishka (Kushan), were both devotees of Buddhism. Kanishka, born and died in Peshawar, was a Buddhist evangelist who facilitated the spread of his religion in China and beyond. Following Buddha's tradition why would they use Sanskrit? It was much later that Brahmins and Sanskrit started dominating during the Gupta Dynasty (319-543 CE). It should be noted that Guptas had no, or

very nominal, influence in Punjab. Furthermore, by that time, Brahmans had forbidden lower castes to read or speak Sanskrit. They had also issued edicts that Aryan men should not speak Sanskrit with their wives. It means that even during Gupta period—the Golden Age of Sanskrit—the bulk of the population was not speaking Sanskrit. It is mentioned by historians (D. D. Kosambi⁶ that Vedic literature was not understood by Brahmans as well: it was only used for ritualistic ceremonies. Therefore, no evidence can be found that Sanskrit was the speech language of the people of any region.

If historical evidence does not prove that Sanskrit was a speech language, then it becomes difficult to accept the conclusions of linguistic scholars who used Sanskrit data exclusively in their analysis. It was not that the Sanskrit data was more authentic because it came in written form earlier than its competitors. As a matter of fact, in earlier periods, putting Sanskrit in written form was not even condoned: there was very intense opposition to writing the scriptures, as is clear from this sukat:

The seller of the Vedas, the mis-readers of the Vedas,
The writers of the Vedas, all go on the path to hell. ⁷

It means that Sanskrit linguistic data was handed down through an oral tradition by a tiny priestly class of Brahmans. This oral data was altered in the due course and it is hard to claim its chronological veracity. For example, the divine sanction of four casts (varna) has not been mentioned in Rigveda except in one sukat. If the divine division of castes was the foundation of Aryan religion, it should have been brought forth over and over in Rigveda. Therefore, it is highly likely that the single sukat, relating

to, division of castes, was inserted much later, may be, after 5th century AD, when Brahmins had gained ideological control during Gupta rule. Similarly, all other Sanskrit scriptures have been changed and adjusted according to the needs of tiny priestly classes and this is an additional reason, that this data should not be taken as authentic.

The role of Sanskrit in Hindu life is similar to Arabic for Muslims living in non-Arabic countries around the world. As a matter of fact, Arabic Quran is taught to every Muslim child while no Vedas or other Sanskrit scriptures are taught in such a proliferated manner. Practicing Muslims recite Arabic in prayers for five times a day and yet those who speak different languages native to their region may not know the meaning of any Arabic words.

There are not many Arabic words that have been borrowed by languages spoken by the Muslims of different regions of the subcontinent. Compared to Arabic, many Persian words have been borrowed by Indian speech languages irrespective of the intra-religious or other differences. The use of Persian for administrative functions for about seven centuries has led to such borrowing in South Asian languages. Comparatively, from the time of antiquity Sanskrit has never been used for such functions and people had little reason to learn it.

It is noteworthy that Sanskrit-speaking Aryans could not establish an administrative system even after living about a thousand years in Punjab. In their first thousand years they could only change the names of the river of this region and that did not stay around for long time either. They were struck with tribal mentality and 'racial particularism' which resulted in their incapacity to resist foreign invasions.

Sanskrit was used for only religious purposes and the process was very exclusionary. Therefore, speakers of people's languages had no reason to borrow Sanskrit words. The roots of Aryan language were not cleansed from Northern Indian speech groups (Urdu, Hindi, Punjabi etc.) by the intrusion of Arabic and Persian, as claimed by Nicholas Ostler, rather they were never there to start with.⁸

The problem with these scholars is that they remain convinced that all Northern Indian languages are polluted or distorted forms of Sanskrit. This stands in contradiction to the historically-proven fact that when Aryans arrived in Punjab, the people of this region had a much more developed language (whatever its name) than Sanskrit. The speakers of that language must have been descendants of Harappa Civilization. Substantial shared vocabular among North Indian languages indicate that all of these languages are variations of speech of Harappans. It has been referred to as Language X by some scholars like Michael Wiltz⁹, but because of unavailability of a better name, we can call it Maluha, which was the word by which Harappans were known in the deciphered writings of Mesopotamia Civilization. While the speech languages were continuously used, the knowledge of Sanskrit diminished due to Brahmans' exclusionary policies. At the end, it became the property and interest of a minuscule priestly class, most of which did not understand it anyway.

In view of the above discussion, linguistic analysis of Northern Indian languages should be based on speech data of Maluha. The establishment of such a consolidated data of Maluha is possible as reflected in languages from Punjabi to Bengali etc. The commonality between North Indian and European languages must be established

through this data and not via Sanskrit. If we are successful in establishing such a commonality then the entire historical discourse has to be rewritten i.e. it has to be proven that such a linguistic relationship existed much before the arrival of Aryans in Punjab. The prevailing view of these languages as polluted form of Sanskrit must, therefore, to be completely abandoned.

The taxonomy of Indian languages has to be revisited as well. Presently, Indian languages are divided into, broadly three main groups: Indo-European, Dravidian and Austroasiatic. Contrary to prevailing view, it has been suggested that Punjabi may be a member of the Austroasiatic family of languages.¹⁰

Despite the countervailing historical facts the Sanskrit myth has remained intact because of certain beliefs and assumptions. To summarize them I have randomly selected a chapter on Sanskrit in Nicholas Ostler's book 'Empires of the World: A Language History of the World'. Like all other western believers of Sanskrit, Ostler has made the following assertions:

1. Sanskrit was not limited to priestly classes but was widely spoken in many regions of India:
“Sanskrit was never a liturgical language...by the beginning of the fifth century BC the language was spoken in an area extending as far east as Bihar, and as far south, perhaps, as the Narmada. Sanskrit literature from the period, principally, the epic poem Mahabharata (Great Bharata) and Ramayana (the Coming of Rama), is full of military exploits and conquests”¹¹
2. “Most of the modern languages of northern and central India are descendants of Sanskrit, developed versions of the Prakrits, much as the Romance

languages developed from forms of vulgar Latin. Finding no traces of Sanskrit, even in Urdu and Hindi, he blames Persian and Arabic for linguistic cleansing.¹²

“Even when the pre-existing languages, such as Telugu, Kannada and Tamil, held their own, they were usually permeated with terminology from Sanskrit. It is quite possible for the borrowed words (called tat-sama, that-same) to be overwhelmingly numerous in a language whose grammar is non-Aryan. Conversely, in Urdu, or even Hindi, majority languages of northern India, Aryan roots may be almost invisible under the heavy influence of later borrowing from Persian and Arabic.”

¹³Acknowledging the spread of Buddhism in Punjab, it is implied that Sanskrit was language of Punjab:

“Besides the spread to South-East Asia, the most influential path that Buddhism took was to Kashmir, and back to the homeland of Sanskrit itself in Punjab and Swat.”¹⁴

3. Despite conceding that Magadhi Prakrit was the language of Maurya court, he tags on that “Sanskrit would have taken up its position thereafter, establishing itself here, and no doubt elsewhere, as the common language for educated discourse of all those who spoke some Indian Prakrit in day-to-day life.”¹⁵

Now, let us examine these assumptions/beliefs for their internal coherence and from the historical view point:

1. The claim that Sanskrit was not a liturgical language but, from fifth century BC, it was spoken in, almost, entire India is not backed up by any

evidence. As a matter of fact, the writer squarely contradicts himself by bringing up real historical facts. Punjab and Swat was the home of Sanskrit, according to him, and therefore, before claiming its spread to Bihar and south India, he should have proven that it was spoken in its own homeland. The only available records of post fifth BC are Ashoka's inscriptions. He himself acknowledges that "Ashoka's inscriptions, the earliest in a decipherable Aryan language to survive are not in Sanskrit but in Magadhi Prakrit, and this absence of Sanskrit from inscriptions, or rather its presence only for literary decoration while the guts of the message was are given in Prakrit, continues for several centuries." From this quote, we can confirm the existence of Ashoka's inscriptions, but we cannot find traces of 'pieces of literary decoration' in Sanskrit. It is evident that either he is hallucinating or expressing his wishful thinking or make-belief notions.

He acknowledges that ".Magadhi Prakrit .was language of Maurya court; Sanskrit would have taken up its position thereafter, establishing itself here, and no doubt elsewhere, as the common language for educated discourse of all those who spoke some Indian Prakrit for day-to-day life." After admitting that Sanskrit was not the official language of Maurya, he tries to catch on straws in saying that 'it would have established itself' for educational discourse.' He does not explain why and how it would have happened.

It was not a 20th century Europe which has a large middle class involved in intellectual pursuits. In those ancient times, most people used education to be employed by the state or become part of priestly

classes: The middle class would have been minuscules if it existed at all in ancient times. So, the probability of Sanskrit being used for 'educational discourse' is very slim. Furthermore, he accepts that, generally, people used 'Indian Prakrit for day-to-day life'. If state was not entreating Sanskrit and people used 'Indian Prakrit' for daily life, then why not to admit that it was limited to a tiny priestly class?

2. The north Indian languages as descendants of Sanskrit is taken to be an article of faith without any evidence. If Indian Prakrits were spoken throughout the documented historical periods, till the Afghan invasion of Mahmood Ghaznavi, then when had Sanskrit a chance to affect the indigenous languages? After the demise of Maurya dynasty, there was a continuous foreign rule for many centuries, at least, in Punjab. Buddhism remained the dominant religion in Punjab till, almost, 7th century. In this situation, how the Sanskrit using priestly class could have a meaningful linguistic effect on this region.

Buddhist Monks were taken to be religious leaders and most of them (men and women) came from the downtrodden classes who were least likely to be educated in Sanskrit and were most likely, indigenous speakers. They were depending on the state grants and contributions by traders. From Ashoka onwards, most of the known rulers were Buddhist, and traders were largely from the same religion or belonged to Jainism, having no reason to favor Sanskrit. Therefore, even on the religious level, Sanskrit was limited to a tiny minority of high caste Brahmins. In the rural areas, even Brahmins

were considered among the lowly class of artisans in Punjab even till 16th century.¹⁶

3. Buddhism was not preached in Sanskrit in Punjab--the Aryan's homeland--but in indigenous language. If Sanskrit would have been the medium of Buddhist preaching, Ashoka, being a Buddhist, would have given some consideration or preferential treatment to this language. His total neglect of Sanskrit shows that it had no public constituency. Buddha, preferred to preach in indigenous language to reach common people and not because of "a positive belief that his caste, the warrior Ksatriya, was actually superior to the priestly Brahmana with its Sanskrit association", as claimed by Ostler.¹⁷

Buddha was not the last one in this regard: All the succeeding reformers, who wanted to negate caste, class, gender and color discriminations, preached in the indigenous languages. From Punjab, Baba Farid (1179 – 1266), Guru Nanak (1469 – September 1539) to Shah Hussain (1538-1599) and Bulleh Shah (1680–1757), from Sindh Shah Abdul Latif Bhatai (1689 – 1752) and Sachal Sarmast (1739–1827), all wrote in indigenous languages. From the Hindi speaking, belt Bhagat Kabir (1440-1518) and Meera Bai (1498-1546), leading Bhakti movement, wrote in people's tongue. As a matter of fact, they built the modern forms of north Indian languages.

Contrary to Ostler's understanding, Arabic had least effect on indigenous languages because it was used only for ritualistic religious practices just like Sanskrit by Hindu priestly classes. After reading Quran and reciting Arabic verses in prayers five time a day, the Punjabi Muslims have absolutely no clue to the Arabic language. Other than a few

greeting words (namaste or salam), Punjabi has remained a common language of people of all religions of Punjab: the use of Sanskrit or Arabic, for religious rituals, has not affected the linguistic discourse of Punjab. Therefore, to fight the status-quo, established by Sanskrit using Brahmans and Persian speaking Muslim nobility, the new ideologies of different belief systems came with assertion of people's languages. It was just like Martin Luther's (1483 –1546) defiance of Latin by translating Bible in German and published in 1522.

European's fantasy for Sanskrit, triggered by Sir William Jones in 1786, was never reevaluated or scrutinized in the light of the scientific revolution in social sciences of 19th century. Charles Darwin (1809 –1882) and Karl Marx (1818 –1883) were born a quarter century after Sir William Jones' Sanskrit hypothesis. The world was interpreted through religious static view in 18th century. The concept of universal evolutionary process, found by Darwin, and basis of socio-economic change discovered by Karl Marx were not part of the general consciousness yet. After 19th century revolution of social sciences, every field of knowledge readjusted itself accordingly, except the linguists dealing with Indo-European languages: they continued with the notion of languages, as a static entity, to be dissected in mechanical elements.

Furthermore, up until 1922 when Harappa excavations were undertaken, and traces of a 7,000-year-old civilization were discovered, the entire interpretation of humans and their language was based on the Vedic literature. Sanskrit was taken to be mother of all languages in that world view. However, after overwhelming evidence of existence of many centuries old advanced civilization, the linguistic perspective should have been updated. It should have been recognized that an advanced civilization, with a

corresponding sophisticated language, would have existed centuries before the Aryans brought Sanskrit. In addition, it should have been taken into account that descendants of Harappa Civilization, and their language, was still there when Aryans came to Punjab: Vedic literature is replete with the wars that Aryans fought with the indigenous populations.

After the Harappa excavation, Sir John Marshall (1876–1958), highlighting the importance of this, wrote that this may be equal or superior to Mesopotamia and Egyptian civilizations.¹⁸ Max Muller (1823-1900) and some other scholars had suggested that the invading Aryans destroyed this civilization. However, the Indian nationalists had countered this theory, claiming that Aryans were not outsiders and were among the builders of this civilization. The recent genealogical research has proven, conclusively, that Aryans came to Punjab from outside at around 1300-1500 BC. Notwithstanding the debate about the causes of demise of Harappa civilization.^{19 20} It is established that the Aryans conquered indigenous people because of their superior means of transportation, based on use of horses and spoked chariots.

Without going into details of characteristics of advanced civilization of Harappa, one can confidently say that it could not have been sustained without a highly evolved language. On the contrary, the Aryans came as pastoral people, and it can be argued that their language, Sanskrit, was at a lower level than the agriculturally advanced Harappans. This basic historical fact should have been acknowledged by the linguists. This had never come to pass and 200-year-old theory is till the foundation of northern Indian languages.

How Sanskrit Myth is Kept Alive?

There must be reasons why, instead of articulating, a fact-based theory, a mythical narrative has been surviving in this scientific age where empirical data is considered essential. Following are some of the reason behind this orthodoxy:

1. In essence, the linguist theories are still stuck in creationist worldview, in which Sanskrit and Latin are taken to be revealed languages, while all other Indo-European languages are vulgar or polluted forms of the God given speech. This pre-Darwinian linguistic view is akin to religious ideology which was enumerated in millions of pages by scholastics for thousands of years. Priestly classes and religious thinkers kept on churning out complicated notions and infinitely complex rituals of worship: Brahmans made the so-called rituals of sacrifice so intricate that no one other than themselves could understand it. Muslim religious experts were also occupied with finding out as to how many angles can be accommodated on a needle tip. For thousands of years the religious scholars strongly believed that whole human kind is offspring of Adam and Eve. Likewise, most of the linguistic theory is dug in pre-Darwinian worldview, weaving complex linguistic threads without any regard to reality (actual speech). Most of the linguists, working with Indo-European languages, are just like Brahmans extrapolating complex structures out of a make-belief speech.
2. At the earlier stages of development of linguistic theory, Sanskrit Grammarian, Panini, was the main source of inspiration for the European scholars. No one had yet constructed analytical structures like him. However, it was not noted that Panini was

establishing mechanics of an artificial or idealized language. To set up structures of such a language are easier than that of a complex speech language where knotty cultural consciousness is involved.

European scholars were looking at the Indian case through their own lens where, according to their belief, Latin had affected the evolution of their languages. In their view, Sanskrit had played the same

- (i) One of the main reasons of this myth is that the impact of Latin and Sanskrit are not analyzed in a proper historical context. Within the Roman empire, the effect of Latin was fundamentally different in its Eastern and Western flanks.: The eastern provinces like , Syria, Cyprus, Egypt and Maghreb registered no effect of Latin because they were descendants of great civilizations and more or equally advanced as compared to Italy. As a matter of fact, “Rome had nothing to teach the eastern provinces in terms of technology and social institutions, and accepted the fact that Greek was their *lingua franca*.”²¹ Consequently, their linguistic evolution took its own course. However, the conditions of western provinces were very different:

“Otherwise Gaul [present day France, Belgium, Luxumburg and parts of the Netherland, Switzerland and Germany], the Rhine-Danube provinces, Spain and the Maghreb were barbarian territory. Most of the inhabitants had no clearly defined system of justice, property rights and taxation. The techniques of governance and

capacity to mobilize resources of war and organize disciplined troops were much less effective than in peninsular Italy. Their per capita income and density of settlements were lower and technology more primitive. There were tracks rather than roads, huts rather than houses, fords rather than bridges. Agriculture was based to a substantial degree on migratory transhumance and pastoralism. There were still hunter-gatherers in the forests.”²²

In this backdrop, Latin had a much greater impact on the backward western provinces. Nonetheless, it will be callosal exaggeration to claim that the inhabitants of these areas had no language of their own. There may have been driven to heavy borrowing from Latin, but the intruding language could not have totally replaced the basic structures of indigenous speech. Historically, it is extremely doubtful that European languages are mere vulgar form of Latin. For such an assertion to be true, one has to assume that European people had no language of their own before Romans conquered Europe. Furthermore, it does not seem likely that common European people were just speaking vulgar Latin before the development of their own languages. If it was so, then European linguistic and philosophical revolutions should not have occurred by departure from Latin. This is the reason that leaders of modern European religion and Philosophy, Martin Luther and

Rene Desecrate (1596-1650), wrote in their languages, German and French. Probably, Latin was never a speech language of Europe, outside Italy, because literacy remained extremely low till the indigenous languages were used for medium of learning. If Latin would have been close to European speech, the common folks would not have been so alien to it. Therefore, we adhere to the notion that speech data, and not only written material, should be used for linguistic analysis.

The European scientists' affliction with Latin terminology and vocabulary may be an elitist hangover from the past. After all, Chinese, Japanese and Koreans have developed the scientific knowledge using their own languages. Therefore, even the use of Latin in science is not a necessity but it continues as an elitist tradition.

Another major difference between Latin and Sanskrit lied in their use for different societal functions. In the western provinces i.e. Europe, Latin was used for administrative, commercial, religious and intellectual purposes. On the contrary, Sanskrit was never used for administrative and commercial functions. Its use for religious and intellectual discourse, was extremely partial; it remained confined to a tiny priestly class of Aryans. The dominant religion, Buddhism, used Prakrit instead of Sanskrit

In comparison to Latin's negligible effect on eastern provinces of Roman Empire, Sanskrit was even in worse shape. The pastoral Aryans who came to Punjab were facing a population whose civilizational and linguistic history was stretched over 5,000 years and who had already gone through a higher stage of technology and culture. From the Latin's varying effect on eastern and western provinces of the Roman empire, one can infer that Sanskrit was in no position to affect the linguistic discourse of Punjab: the western linguists ignore the difference between Latin's penetration in Europe and Sanskrit's interfacing with indigenous language of the Punjab.

Latin and Sanskrit differed in their use because later was confined to only few upper castes while there was no such prohibition on the use of the former. When Sanskrit was at its high mark, the people of lower castes, and to a great extent, women were not permitted to read or recite Sanskrit scriptures, therefore, there was no input from the common people. Generally, the common people and a small elite lived in two parallel linguistic universes. Therefore, European linguistic model was not appropriate for analyzing the Indo-Aryan dynamics. This was a misplaced theoretical framework.

- (ii) Starting from 18th century, Sanskrit scholarship, slowly and steadily, gained acceptance and prestige in the European

intellectual circles. The tradition has continued till our times. In the last 250 years, western scholars have developed linguistic structures to uphold their theory. Since the outcomes of linguistic methodology are not verifiable or their methodological propositions are not falsifiable, like in natural sciences, therefore the data can be twisted or manipulated in accordance with the preferred theory. For example, if etiology of a word is believed to be in Sanskrit data, then something of that sort will be identified which cannot be verified or falsified. But if we assume that another data has to be used for the etiology of the same word, we may find quite a different root. Presently, Sanskrit data is used in a self-serving manner and outcomes are foretold.

- (iii) Entertaining alternative data of indigenous languages did not serve the interest of long-established status-quo. To start with, the British had their own political interests to promote Sanskrit and Hindu scriptures for countering the Islamic/Persian narrative. Furthermore, the British intellectuals found their counterparts in Brahmans because no one else had that level of organized structures. In simple words, other than Persian scholars, Brahmans were the only educated elite that could have intellectual engagement with the Europeans. The British wanted to cleanse India of Persian influence at any cost to suppress the Pathan/Afghan nationalism, the major perceived danger to British Raj from the north.

- (iv) The anti-British nationalist movement was led by Brahmans (like Pundit Jawahar Lal Nehru (1889 – 1964)), other high castes and adherents of Hindu scriptures (like Mohan Das Gandhi (1869-1948)). They had no sensitivity about indigenous languages versus Sanskrit: the European narrative of Sanskrit was much more appealing to the Indian nationalists. The other largest Indian minority, Muslim, were not intellectually matured enough to appreciate such issues. Furthermore, they were looking towards the Middle East and Turkey to revive so-called golden Muslim era. During their seven-century long rule, the ruling Muslim classes had suppressed the indigenous people and their languages irrespective of religious distinctions. Therefore, they had no sympathy for indigenous languages. In short, the political formations were staked against the indigenous languages and, by default, Persian and Sanskrit could maintain their privileged status.
- (v) In the post-British India and Pakistan, the elites have stuck to English and writings in other languages have been limited to fiction and poetry. One can hardly find scholars who are deeply rooted in indigenous languages and can communicate at the international level as well. Since, most of the linguists, in the subcontinent and abroad, are trained by old generation of proponents Ind-European linguistic linkage through Sanskrit; it has become an article of faith that no one is prepared to challenge.

Endnotes

1. Hock, H.H. Principles of Historical Linguistics. Mouton de Gruyter, New York, 1991.
2. Ibid at p 556.
3. Joseph, Tony. Early Indians, Juggernaut Books, 2018.
4. Ostler, Nicholas. Empires of the Word, Harper & Perennial, 2005 at p 176.
5. Ejaz, Manzur. People's History of the Punjab, Wichaar Publishing. At Chapter 3.
6. Kosambi, D. D. An Introduction to the Study of Indian History, Popular Parkashan, Mumbai, India, 1956
7. Mahabharata, quoted by Kesavan, 1992 p 3
8. Ostler at p 178.
9. Witzel, Michael. Aryan and non-Aryan Names in Vedic India, Data for Linguistic situation, c, 1900-500 BC p. 57
- 10 To examine this possibility, I have compiled a comparative dictionary in which, words from Santhali, Munda and Khasi—as recognized members of Austroasiatic group—are matched with Punjabi. More than 5,000 words are matched and many of the remaining vocabulary can be approximated. However, this may not be enough from taxonomical rules and further research may be needed.
- 11 Ostler p 176
- 12 Ibid p 175
- 13 Ibid p 178
- 14 Ibid p 178
- 15 Ibid p 187
- 16 Das Damodar, Heer, Pakistan Punjabi Adabi Board
- 17 Ostler, p 189

- 18 Marshall, J. Mohenjodaro and the Indus Civilization, London, 1931.
- 19 Liviu Gioson, et al: Climate Change Likely Caused Migration, Demise of Ancient Indus Valley Civilization, Woods Hole Oceanographic Institution, Cape Cod, Massachusetts, USA.
- 20 Dixit, Y. et al. Abrupt weakening of the summer monsoon in northwest India ~4100 yr ago. *Geology*. 42, 339-342 (2014) 52.
- 21 Maddison, Angus. *Contours of the World Economy*
- 22 Ibid

Classification of Languages

For the taxonomy or classification of linguistic groups/families, quality of speech data is essential. We have already discussed in detail that Sanskrit does not represent speech data of north Indian languages. Only one thing can be proved from Sanskrit data that Indo-Aryan language shares its roots with the Euro-Aryans. Sanskrit cannot be taken even as a proxy for North Indian languages to show their commonality with European languages. On the basis of speech data of indigenous languages of North India, one may reach the similar conclusion i.e. their commonality with European languages, but that needs to be investigated from a different angle. If such a similarity is established, the entire historical thesis will have to be reframed because that will entail explaining pre-Aryan links between India and Europe.

For realistic classification, speech data of indigenous north Indian languages is absolutely essential. If there was a genuine search for such data, it could have been reconstructed. The language of Aryan homeland, Punjab, later on named as Punjabi, could have been easily established. Of course, word Punjabi was introduced much later under the Persian influence: ‘Ab’ is Persian word, and therefore, the language of this area could not be called Punjabi in older times. However, whatever the name of the common speech of this area was, we can postulate that its form did not change dramatically from ancient times to 1960’s.

The argument for continuity of speech language of Punjab, and most of Indian subcontinent, is based on the change, and lack thereof, of technological, economic and cultural conditions. Historically, self-sufficient village communities of Maurya period, continued replicating themselves for more than 2,000 years. There was no technological or cultural revolution during this long period of time. There were frequent foreign invasions but they did not affect the society on the base level and change the language. During the Muslim rule, from 12th century onward, Persian was the official language from Punjab to Bengal. Many Persian words entered the vocabulary of all the Indian languages but these are mostly detectable. Therefore, one can easily deduct the Persian vocabulary from these languages to get the original speech data.

Punjab was divided into pastoral west and agrarian/commodity producing east. There was no change in western Punjab till the 20th century when the British constructed the new irrigation system of canals. The culture of western Punjab changed due to infusion of peasant community from east Punjab. The western Punjab caught up to the agrarian production but the East Punjabi colonist peasant communities had replicated their previous mode of living. Overall, there was no basic change in the society and its language. This is the main reason that one can detect the continuity of old social institutions (like tribal collective decision making) in the 16th century Punjabi literature. Furthermore, there is no notable linguistic change in Punjabi literature from 16th to 18th century. Most of the Punjabi literature is created by the people's poets and not by elite that was using Persian for

intellectual discourse. Therefore, Punjabi literature can be taken as an appropriate speech data of this region.

The case for Bengali, as basic speech data, is even more compelling. While, in 17th century, India was the richest country, contributing 25% of the world GDP, half of which, 12% was being produced just in Bengal Subah. About 90% of Indian exports were produced in Bengal at that time (1). This means that, during this period, Bengal was at the highest stage of technological know-how, implying that it had the most complex use of language in those times (2). Though the official language was Persian but there was enough literature being created in Bengali in 17th century. But high level of Bangla language never occurred to Sir William Jones, when in 1786, he was highlighting the perfection of Sanskrit, standing on Bangla land, Calcutta. For their political pursuits, the British was mutilating indigenous languages through establishing Fort William College in Calcutta. With that mindset, the discovery of Sanskrit was made to find a genetic link between India and Europe. It meant to establish that the British was not first or alien rulers in India, but it was continuation of Aryan conquest of the ancient times.

The ground reality had nothing to do with Sir William Jones hypothesis about linking India with Europe through Sanskrit. At that time, like in the previous history, Sanskrit was neither spoken nor used for any practical purposes, except for the religious rituals. It was similar to Bengali Muslims' use of Arabic, having no effect on actual speech. If the western linguists had any real interest in finding out the commonality and differences, between Indian and European languages,

they could have easily used Bengali speech data, as a representative of highest level of expression, employing the most sophisticated technology of the time. How abstract mantras, used for religious rituals, could be substituted for a live language, fulfilling infinite needs of that speech group? Fact of the matter is that besides political expediency, the Europeans were looking for a substitute of Latin, that they were employing, rightly or wrongly, to describe the evolution of their own languages.

It is pertinent to use speech data of indigenous languages instead of Sanskrit. For the uninitiated, it is appropriate to mention that these languages are not like that of endangered indigenous tribes of Americas or Australia: To mention just two of these, Bengali is spoken by 228 million and Punjabi by 130 million (3). If both are combined, they are almost equal to number of English speakers and if Hindi/Urdu are added, the number is twice of that. Furthermore, the 70% of the vocabulary is shared among these languages, not because of Sanskrit, but due to the fact that they all have their roots in pre-Aryan language of the Harappa Civilization. One is struck to find word like '*rinhna*' (cooking) both in Bengali and Punjabi spoken up until 1960s. Re-classification of Indian languages would be a very complex matter. For now, we have concentrated on commonality between Punjabi and Indian Austroasiatic languages (Munda, Santhali and Khasi). The initial project was to find out whether Punjabi belongs to Indo-European or Austroasiatic families of languages. However, it was found during the research that the entire paradigm of classification of languages of the subcontinent on baseless foundations, using

irrelevant speech data. Our findings about the relationship between Punjabi and Indian Austroasiatic languages has led to the following observations:

- (i) If we look at the speech data of Santhali, Munda and Khasi -languages of distanced areas like North-East of India-the vocabulary of most essential objects and function matches very well with Punjabi. This means that the speakers of these languages were separated from Punjab at some point in history: we do not know if it happened before or after the Aryan's entry in Punjab. The commonality of words related to agriculture (specifically appliances) indicates that at the time of separation, the society was at the mature agrarian stage. The quantity of shared vocabulary is very high and it is not due to Sanskrit influence in both places because Sanskrit had no agrarian vocabulary to start with.
- (ii) The written materials of people's poets of Punjab of 15th century onward show that basic structure of Punjabi remained intact for the last four centuries. Some words used in 16th to 18th century Punjabi writing disappeared from common parlance but they are still used in Santhali. Shah Hussain, a 16th century poet, has used 'ayo' for mother, which is still commonly used in Santhali though not in Punjabi. Hundreds of such words are identified
- (iii) It is a gross misperception that Persian and Arabic have cleansed the indigenous languages of Sanskrit words and that is why this language has died. It is true that Persian vocabulary made

its way to Punjabi and other indigenous language, specifically, matters related to administrative set-ups, judiciary and land revenue system. However, the effect of Persian vocabulary remained marginal on the bulk of population (about 90%), living in rural areas, because their encounter with the state institutions was minimal. It is also true that Persian, being the medium of education in madrassas, the main vehicle of literacy, has effected the intellectual discourse in Punjabi. The most popular poet, Waris Shah, has liberally used Persian words, but his basic Punjabi structure is so powerful, that the common Punjabis from major religions, Hindus, Sikhs and Muslims, having no clue to Persian, reverently consider him the best poet of all times.

Endnotes

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2. T. Zami, The Language Question in 17th Century Bengal, The Daily Star, February 21, 2018
3. "Summary by language size". *Ethnologue*. Retrieved 12 March 2019. For items below #26, see individual Ethnologue entry for each language.

Is Punjabi a Member of the Austroasiatic Family of Languages?

Most scholars agree with the theory that Punjabi, being a North Western language of the subcontinent, belongs to the Indo-European family of languages. Another theory has been that Dravidian languages were the medium of communication of people of Harappa civilization.

According to this theory, the indigenous Harappans were Dravidian speaking people who were pushed to the South by Aryans. However, Micheal Witzel has found that Dravidian words start appearing in Rigveda-the first Aryan Veda written in Punjab- much later, which means that they (Dravidians) came to Punjab quite late.

Notwithstanding the discussion about Dravidian connection with Harappa Civilization, it is clear that Punjabi does not share anything with the languages of South India. There are additional reasons casting doubt on Punjabi-Dravidian connection.

If Punjab. largely, remained stagnant for two millennia and fundamental linguistic structure of its people remained constant-a very high probability-it raises the question as to why Punjabi did not retain any traces of Dravidian languages? Within a thousand years of Aryan entry into Punjab, Persian, Greek and Saka started dominating the political discourse for 4-5 centuries. It doesn't seem likely that Aryans would have completely washed away the indigenous language by the time the invasions from the north became more frequent. Vedic literature shows quite clearly that the Aryans continued fighting the indigenous

people and there is no indication that those were Dravidians.

Lately, a third group of historians disagrees with both theories and espouses that Punjabi may be a member of Austroasiatic languages. According to their theory Austroasiatic people created the Harappa and Mesopotamian civilizations and hence the origin of Punjabi should be searched in the Austroasiatic languages. Within the subcontinent Munda, Santhali and Khasi are considered to be the authentic representative of Austroasiatic languages. The Santal, or Santhal, are an ethnic group native to India and Bangladesh in South Asia. Santals are the largest tribe in the Jharkhand state of India in terms of population. They are also found in the states of Assam, Bihar, Odisha and West Bengal. They are the largest ethnic minority in northern Bangladesh's Rajshahi Division and Rangpur Division. They have a sizeable population in Nepal and Bhutan. Similarly, the Munda are found in the northern areas of east India concentrated in the states of Jharkhand, Odisha and West Bengal. Munda also reside in adjacent areas of Bihar, Chhattisgarh and Arunachal Pradesh as well as in portions of Bangladesh. The group is one of India's largest scheduled tribes. Munda people in Tripura are also known as Mura, and in Madhya Pradesh they are often called Mudas. The Khasi people are an indigenous ethnic group of Meghalaya in north-eastern India, with a significant population in the bordering state of Assam, and in certain parts of Bangladesh. The Khasi people are the native people of Meghalaya and are the largest ethnic group in the state. Their language, Khasi, is categorized as the northernmost Austroasiatic language. They are also

peculiar and noteworthy because they are the only ones living in a matriarchal system

An effort has been undertaken in this chapter to explore as to which family of languages Punjabi belong to. For this purpose, instead of employing linguistic jargon, a very simple methodology has been used. Taking language as a tool to address basic human needs, the linguistic evolution has been treated as a sub-set of general development of human communities. It means that language comes into being only to fulfill human material and social needs . It is assumed that, in primitive times when humans were sustaining themselves by food gathering and hunting, their linguistic needs were limited to that mode of life. As the humans domesticated the animals, and later on plants, their linguistic horizon expanded. Consequently, the language had substantially evolved at the pastoral and agricultural stages of human development. Therefore, in those sets of vocabulary have been identified that must have been essential at those elementary stages. If two or more language had a shared vocabulary at those primary stages, they should be grouped as a family of languages.

Almost all the studies, authenticating evolutionary process, agree that in the beginning, while living in trees and caves, sustaining through food gathering or hunting, the human race was occupied with its immediate survival. At that level, the primitive human had no concept of nature and the Superbeing, therefore, the hymns and mantras should not be taken as the primary source of origin of languages. Instead, words used for concrete essential necessities should be considered as the primary sets, for demarcation of linguistic families. As the human body, edible goods, living arrangements, immediate surroundings (animal

world), the earth, water or fire etc. are of immediate concerns, therefore, the words for such things would have been coined first.

It can be asserted, with confidence, that evolution of languages was part and parcel of concrete changes occurring at various stages of existence. Putting it simply, the vocabulary needed for food-gatherers must have been much less and limited than at the stage of domestication of animals and plants. As the domestication of animals and plants was a major breakthrough in human civilization, the contours of language changed dramatically afterwards. Historically, with the induction of agriculture and animal breeding, the realm of abstract notions opened up. However, it should be kept in mind that human languages must have come into being before that stage. This is the reason that the vocabulary of stages prior to agriculture/animal breeding is extremely important to find out the word roots and the people who shared them. In this backdrop, interesting results may be obtained from comparing numerals, kin terms etc. In the following tables we have compared the basic vocabulary of various languages we have discussed above. The selection of the words has been done with the view that they represent very early stages of human development. In most these tables, we have compared Punjabi, Sindhi, Sanskrit, Tamil and Santhali words to see which languages are closer to each other. Sindhi is also included in some tables because it is also descendant of Maluha.

Table 1

Punjabi	Santhali	Derivations	Sanskrit	Tamil	English
Ik	Ek		Ekam	Oru	One
Du	Do	Duhri/duna	Netra	Irantu	Two
Tin	Tin	3 times/tehra	Dahana	Munru	Three
Car	Car	4 ½=sarhe car	Abdhi	Nanku	Four
Pejn	Penc/panc	Panjseri/pasari	Paj	Andhu	Five
Che	Turui	16=solo/solan	Sat	Aru	Six
Sat	Sat		Sapta	Eju	Seven
Ath	Iral	Adhuli	Asta	Ettu	Eight
Noon	Are	19=unis	Navam	Onpatu	Nine
Das/deh	Gel	10 seer=dhara	Daza	Pattu	Ten

16 in S is Sodazan 19 in S atidhRti, 20 vimzati, in Santhali bis, miti isi

In this table, the Punjabi digit for six, eight, nine and ten are different from each other. However, though the words for six are different but for sixteen ‘solan’ is used in both languages. For nineteen, both languages use ‘unis’ or ‘uni’. Though for ten , das/deh are different but for 10 seers both have same word , ‘dhara’ which seems to be derived from ‘deh’.

Counting is very elementary learning skill and, contrary to common perception, it takes lot of schooling. Unschooled Punjabis could only count one, two, five, ten and twenty. For three they would say, two and one more and for four, two, one more and another one. For the higher numbers they could count in twenties only i.e. the price of a buffalo is expressed in six, seven or

eight twenties etc. According to real life story, a schooled person was negotiating price with an unschooled Punjabi. The buyer offered that he will pay 150 but the seller insisted that he will not accept less than 7 twenties (140). Obviously, for seller 7 twenties (140) were less than 150. It can be postulated that the basic counting would have been one and two and that's why the sound of these digits is quite similar across languages.

Table 2

English	Punjabi	Sindhi	Sanskrit	Tamil	Santhali/Munda
Speaking	Gal/bolna	Galahan	Bravti/gadati	Pēcu	Gal
Seeing	Waikhna/disna	Disan	Darzanam	Pārtt	Iyo/Darson/Nel/najar
Smelling	Sungna	Sungan	Gandha	Nukarat	Bas/Seing
Tasting	Cakhna	Cakhan	Svada	Cuvaikyāṇa	Cakha
Hearing	Sunana	Abdan	Zaravanam	Kēṭṭal	Sunan
Chewing	Cabna	Cabaran	Carvanam	Mellum	Cablan
					/Togoce

In tables 2, we have listed the words related to basic human senses and functionalities. Most of the words are linguistic signals for elementary functions that even the most primitive humans would have encountered and tried to identify them for mutual communication. Table 2, shows that Punjabi words are closest to Santhali. It is noteworthy that word for 'speaking' as *gal karna/ghalan* or *gal* is not used in any other Indian language (we know) except in Punjabi/Sindhi and Santhali. The word for 'seeing' as *Waikhna/disna* is similar to Santhali word *darson* but very

different from *nel* or *lel*. However, there is a Punjabi poetic verse ‘*nel kraian nelkan*’ in which word *nel* has been approximated to as a specific tree or an area of the Punjab. But if we take *nel* as seeing and *nelkan* as festival, the expression becomes more meaningful. This mean that this word was used in Punjabi, meaning, seeing at some time.

Table 3

English	Punjabi	Sindhi	Sanskrit	Tamil	Santhali/Munda
Water	Pani	Pani	Jal/Neer	Tannir	Pai/Pani
River	Darya	Darya	Nadee	Nati	Daryao
Earth	Dharti/Zamin	Zamin	Pirthvi	Pumiyil	Dharti
Sky	Asman	Asman	Akasha	Vanattil	Serma/Isposito
Moon	Chand/chan	Chand	Chandra	Nila	Chando
Sun	Suraj	Saj		Surya	Cūriyaṇ Suraj
Male (boy)	Munda	Chokro	Balaka	Ciruvan	Kurva
Girl	Kuri		Chokri	Kanyaka	Pen Kuri
Man	Marad	Marad	Purusa	An	Marde (used)
Woman	Aurat/zal/	Zal/Aurat	Mahila/Nari	Pen	Aimai/budhi
		zanani/budhi			
Snake	Sap/nag	Nang	Sarpa	Pampu	Bin/sabin ¹
Tree	Rukh	Wan	Muhiruh	Maram	Rukh
Hand	Hath	Hath	Hasta	Kai	Ti (tali) ²
Foot	Pair		Pair	Pada	Kal Janga/pao/purango
Face	Mukh	Manan	Vandana	Mukam	Mukh
Mouth	Monh	Monh	Mukhaja	Vay	Mui
Hair	Wal/bal	Waran	Kezah/loman	Muti	Up

¹ In Punjabi, Bin is the musical instrument used by snake charmers only

² In Punjabi Tali (hand clapping) and tal (rythem created by hand struck drums does not seem to have any other root than Ti.

In table 3, we have compared the words which refer to the nature, gender differentiation and some vital parts of human body with the view that the ancient human beings may have used. Most Punjabi and Santhali words match except for boy, snake and hand. It is very intriguing to see that, except in Punjabi and Santhali, the word for girl as *kuri* is not present in any other major language. However, the word for boy as *kurva* as male form of *kuri* in Santhali looks more logical than *munda* in Punjabi. The Santhali word for snake and hand are already explained in the table foot notes.

Going on higher level of social evolution, as the institution of family emerged in different communities, titles to the relationships would have been designated. These titles can also help to put different languages in various families. However, since the communities were still tribal, with scant interaction, title designations would have varied. In the table below, we have given titles used in Indo-European, Sanskrit and other languages.

Table 4

English	Punjabi	Sindhi	Sanskrit	Tamil	Santhali/Munda
Mother	Man	Man	Mata	Amman	Ayo/Buhdia (1)
Father	Peo/Bap	Paei	Pitah	Appa	Bap/ Baba
Son	Putar	Putir	Putrah	Makaṇ	Babu/kora hopon
Daughter	Dhee/bitī	Putri/Puter	Putri	Makaḷ	Biti/kuri gidra
Brother	Bhra/Bhai	Pa	Bhrata	Cakōtaraṇ	Bhai/Bhaya

Sister	Bhain	Pain	Bhaginee	Cakōtari	Bohea
Elder Sister	Apnan		Agraja/attika	Mūtta cakōtari	Aji
Husband	Khasam	Maras	Pathi/pati	Kaṇavar	Jawae/Purus
Wife	Aurat/Zal	Zal	Patni	Maṇaivi	Bahu/Orak
Father-in-law	Sohra	Pacima	Śvaśuraḥ	Māmaṇār	Bonhar/Susar
Mother-in-law	Sas	Sas	Svasruh	Māmiyār	Hanarea
Son-in-law	Jawae	Patma	Pamatar	Marumakaṇ	Jawae-gomke
Daughter-in-law	Nunh Daema		Snusa	Marumakaḷ	Kimin
Wife's brother Sala	Salu	Salig	Sayalah	Maittuṇaṇ	Sala/salah
Husband's brother	Devar/jaith	Maras ju pa	Devra/Jetha	Kaṇavarin	cakōtarar Deor
Wife's sister	Sali	Zal ji pain	Sayali	Maṇaiviyin	cakōtari kuri (sali)
Husband's sister	Nanan	Nanan	Nananda	Cakōtaraṇin/cakōtari	iril kuri (Nand
Mother's father	Nana	Nana	Mātāmahaḥ	Tāyin tantai	godom hadam
Mother's mother	Nani	Nani	Mātāmahī	Tāyin tāy	godom budhi
Mother's sister	Masi	ma ji pain	mAtRSvaseya	Citti	Mai/Musi
Mother's brother	Mama	ma ji paa	Mātulaḥ	Tāyin cakōtarar	Mama
Father's father	Dada	paa ji paa	Pitāmahaḥ	Tantaiyin tantai	godom hadam
Father's mother	Dadi	paa ji maa	Pitāmahī	Tantaiyin tāy	Godom Budhi
Father's sister	Puphi/buwa	Puphi	pitRSvesA	Tantaiyin cakōtari	Hatom
Father's brothers	Taya/caca	Cacu	pitRvya	Tantaiyin cakōtarar	Kaka
Brother's son	Bhateja	Bhaitu	bhrAtRja	Cakōtaraṇin makaṇ	Bhatija
Brother's daughter	Bhateji	Bhaiti	bhrAtRlyA	Cakōtaraṇin makaḷ	Haman-
kuriSister's son	Bhanja	Bhanju	svasrIya	Cakōtariyin makaṇ	Bhanga
Sister's daughter	Bhanji	Bhanji	bhAgineyI	Cakōtariyin makaḷ	Bhangi
Grandson (paternal)	Pota	Potra	Pautraḥ	Pēraṇ tantai	Gorom kura
Granddaughter (paternal)	poti	Potri	Pautrī	Pētti tantai	Gorom kuri
Grandson (maternal)	Dohtra	Dohtra	Dauhitraḥ	Pēraṇ tāyvaḷi	Deo/bhagin
Granddaughter (maternal)	Dohtri	Dohtri	Dauhitrī	Pētti tāyvaḷi	Gongo kuri

Sister's husband Bhanwaya	Paniwayo	Avutta	Cakōtariyiṇ kaṇavar	Sadge
Sali's husband Sandu Sandu	Maṇaiviṇ	cakōtariyiṇ kaṇavar		Sadhu
Widow/widower Randi Zal run	Vitavai/ Maṇaiviyai	ilanta		Randi
1 Shah Husain, a famous Punjabi poet of 16 th has used the word <i>ayo</i> for mother “Iyo di sonh babul di sonh.”				

Following inferences can be drawn from this table.

1. Indo-European common vocabulary for kinship does not go beyond a few basic relations like, father, mother and brother.
2. After Sindhi, Punjabi shares the most kinship titles with Santhali and Sanskrit: There is no commonality between Punjabi and Tamil.
3. It does not seem likely that commonality between Punjabi and Santhali, as opposed to Tamil, has been drawn from Sanskrit. It is claimed that Sanskrit is an authentic member of Indo-European family, and therefore one expects that it should have some shared titles with other Indo-European language. Since this is not the case, therefore, it is more probable that such vocabulary was borrowed from the indigenous languages spoken during Harappa civilization period or even before that. Furthermore, given the historical fact that Aryans came as a male group to Punjab, it is more likely that such vocabulary was transmitted to original Sanskrit speakers by indigenous women who were forced to live with the new commers.
4. It has to be explored that the commonality between Punjabi and Santhali, as a common language was used by these geographically distanced groups

during the Harappa civilization period or even before that.

Table 5

English	Punjabi	Sindhi	Sanskrit	Tamil	Santhali
Animals	Paso/Dangar	Janwar	Pazu	Vilankuka	Posu/Janwar
Cow	Gan	Gaon	Gav	Mātu	Dangri/gai
Milk	Dudh	Kher	Ksira	Pāl	Toa
Bull	Dahga/dand/	Bail	Vrsa	Kālai	Dngra/Sand
Goat	Bakri	Bakri	Aja/bukka	Vellāṭu	Boda
Sheep	Bhed	Radh	Mesa	Āṭukaḷ	Bhidi
Buffalo	Majh/maheen	Mahnen	Mahisi/Mahisa		Ondroch
Horse	Ghora	Ghori	Azva/Arvan	Kutirai	Sadom
Donkey	Khota/Gadha	Gadh	Gardabah/Khara	Kaḷutai	Gadha
Elephant	Hathi	Hathi	Kujcara/Matagga	Yāṇai	Hathi
Castrated	Khasi	Khasi	Vadhri	Nalantattiya	Khasi
Calf	Varchut/waca	Gabi/gabo	Vasta	Catai	Mihu/bacha
Dog	Kutta	Kutto	kukkura	Nāy	Kutru

Domestication of animal must have been a major breakthrough for food gathering and hunting societies because getting basic means of physical sustenance is much more predictable and secure. The Punjabi word *paso*, for core domestic animals is same in Santhali while Sanskrit *pazu* is a little variation but not very different. Probably, the domestication of food generating animals like cow or goat

was a priority. Therefore, the words associated with processes of upkeeping the domesticated animals should be taken as primary set of linguistic vocabulary. Grazing is essential to keep them alive and Punjabi word for grazing is *carna*, which itself is transformed from *car* (grass) in Roma, the language of European gypsies who originated from Punjab: *Ghah* is the word in Punjabi and Sindhi, *ghas* in Santhali and *trna* in Sanskrit. Relating to grazing, *charna*, *carwahi* is used to denote the compensation or wages for this job and *Cherea* (in Munda) and *carwal*, *mahi*, *chero* in Punjabi are the ones who undertakes this work. It seems that word for grazing goats (*bakri*) as *aili* or *pali* are later additions because in Roma the (goat) shepherd is called *bakrara*, directly derived from *bakri*. In Santhali, the word *ada* is used for the resting place of grazing animals in the afternoon. The same word, *ada*, is used in Punjabi in generalized sense as a fixed point or place where people gather routinely to do certain things. A popular rural game *ada-khda* (played by four persons) also indicates that the very word came down from grazing. This provides a hint that Punjabi and Santhali/Munda would have been used by same people at an early stage of animal domestication.

The essential yield from cow and goat is milk for which Punjabi word is *dudh* which in Sindhi is *kher*, close to Sanskrit word *ksira* and very different from Santhali *Toa*. However, *dudh* is used in Santhali for other related

functions. The words milking is *cuna* in Punjabi but *kherdhan* in Sindhi, *Dudhu* in Santhali and *dohana* in Sanskrit: both *dudhu* and *dohana* seem to be derived from *dudh*. The word for processed milk, as curd, has same word *dahi* in all the languages we are comparing.

It is interesting that the word *banhda* in Santhali stands for milking pot which is used for all vessels in Punjabi. It is logical to postulate that vessel for holding the milk could have come first than its other uses: The pastoral societies were much less into cooking food and, hence, their use of vessels was not essential.

Similarly, as humans would have started a relatively settled life, the words for their abodes would have been coined. In the beginning, the abodes made by straws, tree branches etc. were/are called *chapri* (*jhupary*) or *kuli* (*kuria*) in Sindhi, Punjabi and Santhali. The Santhali generic word for the house is *orak* but a mud house with timber roofing is called *kotha*. The word *kotha* is used in the exact same meaning in Punjabi. There are varying words for the door in Santhali and Punjabi, however, to *bol* is used for entering the house in Santhali which is close to *khol* (to open) in Punjabi but far off from *boha*. Nonetheless, Punjabi *boha* seems to be much closer to Santhali *bol* than any other root in its own vocabulary. Therefore, it is evident that Punjabi and Santhali shares the vocabulary about the primitive

aboding arrangements. The Sanskrit/Persian words *dar* and *dvara* or Hindi *darwaza* appear to have been later entries.

Table 6

English	Punjabi	Sindhi	Sanskrit	Tamil	Santhali
Land	Bhoin/Zamin	Zamin	Bhu/Bhumi	Nila	Bhumi
Ploughing	Calana/Wahna	kaahin	Karsin/Halya	Uḷavu	Calao
Ploughshare	Hal/Phala	Ghobo	Phala	Kāru	Phal
Ploughman	Hali	Hari	Puḷōkman	Halboha	Harwalia
Yoke	Jola/panjali	Panjali	Yoga	Nukattaṭi	Yuga
Barley	Jao	Jao	Yava	Pārli	Jao

Table 7

Punjabi	English	Santhali/Munda
Hal	Plough	Nahel
Hali	Ploughman	Hal Boha/Harwaha (1)
Jula	Yoke	Arar/Arana (2)
Juna/Jorna	to plough	Jorao/si/siu (3)
Jota/Jotra	A shift of ploughing	Jota
Jotar	the rope with which the oxen are tied to yoke	Jote Mahaar
Jug	The pair of oxen used in ploughing	Yug Jori
Camata	A leather strap to bind the	Camata

	Yoke with the plough haft	
Sen/Sian	Lines made by plough	Sen
Wahan	A ploughed field	Worraniya
Dhagha/balad/dand Daand	Bullock	Dhangra/dandra
Nath	to bore the nose of bullock	Nat
Khasi khasi	Castrated bullock	Khasi
Andar	Uncastrated or improperly castrated	Andar

1. *Harwaha* is same in Punjabi as *hal wahan wala* 2. Though *arar/arana* are not used for yoke or *jula* but the shuttle sticks for keeping the bullocks in is called *aril* (pl. *arlian*) 3. Sen, as lines made by ploughshare are derived from *si/siu*.

From table 5 and 6, it is abundantly clear that vocabulary regarding agricultural land, essential processes and implements very close if not identical in Punjabi and Santhali. Approximately, similar vocabulary is shared by Sanskrit but most of it is borrowed from Punjab because that is where Aryans' first several generations spent their lives. Since the pastoral Aryans hated agriculture and the cultivating communities, therefore, it is most likely that agricultural terminology, like the titles of extended family members, would have come from the indigenous people, the descendants of Harappa civilization. The adherents of Indo-European language(s) have tried to prove a common agricultural terminology through similarity of words like yoke and *yuga* but the argument does not go very far. An extended similarity of agricultural processes and implements found in Punjabi and Santhali cannot be traced in Indo-European languages. Even Hindi words like *jua* (yoke), *bail bullock*), *nakil* (bored bullock nose) are quite close to Punjabi but not as much as Santhali words are.

The matching of words like, Juta/jutra, jug, nath, khasi and andar between Punjabi and Santhali reflect that the agricultural processes and tackling the ploughing animals are identical. Such intimate details cannot be coincidental: it proves that speakers of both languages would have been one community when domesticated animal came into use.

In the early periods, salt was the only spice that was used by most people. The pastoral communities used to add only salt to boil the meat for enhancing the taste. Word for salt in Punjab and Sindhi is *lun*, *bulun* in Santhali, *ksara*, *lavana* in Sanskrit and *namak* in Hindi. It seems that Sanskrit *Kasara* is close to Indo-European salt but *lun* or *bulun* are too far away. This again shows that there was a common language of people who speak Punjabi and Santhali now. It is also clear the separation between these two sets of distanced communities had occurred after agriculture had come to the level where domesticated animals were employed for ploughing. Excavations of Harappa cities and their large size (about 30,000 in Harappa and 40,000 in Mohanjodaro) shows that it could have been possible only if the agricultural sector was producing a substantial surplus. In turn, it is possible only if domesticated animals were used in agriculture. Therefore, it can be inferred that the Harappan language- whatever its name- was commonly used by Punjabi and Santhali people.

It is also a historical fact that Ganga-Jamuna valley was brought under cultivation much after the demise of Harappa civilization. It was after the coming of Aryans and the use of iron: thick and hardened soil covered by dense forests could not be tilled before the finding of iron. It can be

envisioned that most of the labor used for development of agriculture in Ganga-Jamuna valley would have been brought from Aryan conquered Punjab communities therefore Harappan language would have accompanied in a transformed form. But, identical vocabulary of Punjabi and Santhali indicates that though separated, both communities kept essential words of pre-Aryan language.

It is safe to assume that the people of Harappa Civilization had a developed language and it continued to survive through its descendants: its total annihilation would presume that its speakers vanished into thin air. For example, 10 to 12 million of Romani people, popularly known as gypsies in the western world, started moving out in 6th to 11th century from North India, specifically from Punjab to Europe. They are genetically very close to Doms of North India. Despite their journey to Europe may have taken centuries and they interfaced with different nations, cultures and languages for more than a thousand years at least, their basic vocabulary has remained very close to Punjabi, as you can see in the table below:

Table 8

Punjabi	Romani	English	Punjabi	Roma	English
Pani	Pani	Water	Gin	Gin	Count
Darya	Daryevo	River	Gun	Gunoi	Garbage
Bibi	Bibi	Lady	Badmach	Harumbash	Rascal
Borh	Boro	Oak tree	Kala	Kalo	Black
Cabna	Cambel	Chew	Khesa	Kasa	Pocket
Cor	Cor	Thief	Kuchar	Kico	Hip

Cumi	Cumi	Kiss	Kila	Kilo	Peg, post
Dukh	Dukh	Pain	Kuhni	Kui	Elbow
Dudh	Dushil	Milk	Ghar	Kher	House
Cand	Shon (con)	Moon	Laj	Lazhal	shame
Kuri	Kurva (2)ralki	Female	Mel	Mel	Dirt, filth

1. Due to non-availability of a comprehensive Roma dictionary, we have selected some random words from a very short dictionary. More work is needed
2. *Kurya* means a female prostitute in Roma which seems to be derived from *kuri*. The available dictionary gives *ralki* for girl which is *larki* of Punjabi/Hindi.

Conclusions

Punjabi and Sindhi are most likely the inherited Harappan languages. Our research shows that Punjabi shares basic vocabulary with Santhali and Munda which are included in the Austroasiatic family of languages. It seems like Punjabi, Munda and Santhali had the same origin. It remains to be sorted out as to when and how and when they got separated. In this backdrop, it can be reiterated that Harappa Valley script would be easier to decipher if a consolidated data set of Punjabi, Santhali, Munda, Khasi and Roma vocabulary is established and explored. In our view, Dravidian and Indo-European language will never give any clue to the Harappan script because of absence of a basic shared vocabulary.

Despite scant evidence, it has been taken for granted that Punjabi is in the family of Indo-European languages. A few scholars like Ainul Haq Faridkot¹ and Asif Khan² have challenged this popular theory, asserting that Punjabi has deeper connections with Dravidian languages instead of the

Indo-European languages. However, in recent times, some scholars like Michael Waltz³ have suggested that Punjabi may not be a member of either and may belong to the third group of Austroasiatic languages, that include Munda, Santhali and Khasi spoken in parts of North Eastern India.

Hundred Elementary Words Identified by Morris Swadesh⁴

Number	Punjabi	Santhali	Eng.
1	Main, Appe	Apne, In^	I
2	Tun, tusin	Ape, aprug; (2) aben	You
3	Asin, asan, sanun	Abo, abon, ale	We
4	Eh, inah	Ina, isko, iti, iyo,	This
5	Oh, ohna, ona	En, hana, hina, hona, hone, ina, iti, kona, ona,	That
6	Kon, kis, keha	Cele, celeč, Qkge	Who
7	Kewn, keh, kia	Cele, celeč, cet, cetame, jage, je, oka; (eacclan.) eh, iyo ; (to do) ceka ; (do you call it) is ; (is it). oi; (kind) cekan, cekan lekan, cet lekan, kon aesan, oka lekan ; (manner) oka leka, oka lekan ;, (pl.- ace) okare, oka, then, oka ut^r ; (thing) cetat ; (then) kir, bab kir.	What
8	Nahin, na, bin	A, ba, bañ, be	Not
9	Sara, atom, bhar (pur)	Atom, bebak, bhor, caba, car, catur, chinci punci, chucha, gayum, harek, irci gurci, irtiç gartiç, istok, joto, khande khand, lae, liti birsi, momblot, flam fiam, ostgk, paeuk, sagor, sanam, sara, sobbo	All
10	Bahoon, kai, adi	Adi, aema, ariç, at ut, beb^riç, beporloe, bist^r, buruç (2), chau (2), dadur, dher, gadgad, gutek, samani, sañge;	Many

11	Ik, Eka, ekam	Eka, eka china, ekam, ekam dukam, mit, mittañ, mittee, mit. tan; (in comp.) tak; (in arithmetic) koda ; (alike) saman; (of wristlets) phara; (a whole), gotanak; (each) koda ke koda; (not) niti; (that) onatak ; (this) noatāk; (by one) gmifi, eka eki, aka eke, parti; (side) ekdhar ; (after the other) atom, bhasañ bhusuñ, dorpha (2), gayar guyur, gontg goto, gujur (2), hyde guda, hargé ture&, ladlad, ladlud,	One
12	Do, duna, duhra	Bar, barea, do; (plies) duhri ; (fold) duna, bar guna; (each) babar gotañ;	Two
13	Wadha, bara	Asin darin, barhantar, dama do mo, daphu, dargu (2), darhaft, daru, dhabar dhubur, dhargu (2), dhargu sargu, dobo, ghogo, haha dañ, haprak, hudurak, jahbaj, jobdg., latu, marah, mgstg, muthu, naprak, raeka, sérá, thabu;	Big
14	Lamma	<p>Baela, bayul, biyol boyol, boela, boribor, buntu butgé, botboto, cin dar candar, dakdaka, dgkdgko, gaboč (2), gudui (2), jelei, jhal, lapham, larga (M), largi (F), lay^ok, leñlon, limañ lamaan, loetor, lohok (2), pgr, raeka, rampar, riyol royol, roela, saela boela, sañgid, sqkskgko, toh9č (2); (as tree-trunk) hirhitijah ; (very) bočto boygl,</p> <p>Sw^ob^s bedr^o, bedr^o, bendret, beñjak, beñjlallf, betret, bhetra (M), bhitri (F), bhutka (M), bhutki (F), ceñcuria, cerca, cuni, dač duč, debø (2), débte, daret, det, det (2), dhena, duč, dlué dupué, dumk^o, dumkuč (2), galae, gendlañ, gerijlah, getijor, gud gudau, hudiri, jelped, jeneč, jōč, juč, jura, jurgá, jurmi (F), kadayut kuduyut, kaptič, , katič, khedra, : kherra, lenda, letret (M), litrit (F), letwaf, mer sitruč, nic, pilcu, pil cuñ, puturyut, regathia, rembre, ret! a, rethma (M), rethmi (F), rim sié, royo, royo ropo, ruiš, Salpot, semeč, sitka, sutruč, tebra (M), tibri (F), tembe& turuč, tembrot, temnet, tentha, tepa tepe, themka (M), thimki (F), thepca (M), thip ci (F), thikri (F), tira (M), tum; tuna (M., tuni (F), tura (M), turi (F), turyut ;</p>	Long
15	Chuta, nika	Sw ^o b ^s bedr ^o , bedr ^o , bendret, beñjak, beñjlallf, betret, bhetra (M), bhitri (F), bhutka (M), bhutki (F), ceñcuria, cerca, cuni, dač duč, debø (2), débte, daret, det, det (2), dhena, duč, dlué dupué, dumk ^o , dumkuč	Small

(2), galae, gendlañ, gerijlah, getijor, gud gudaŋ,
hudiri, jelped, jeneć, jöć, juć, jura, jurgâ, jurmi (F),
kadayut kuduyut, kaptić, , katić, khedra, : kherra,
lenda,

letret (M), litrit (F), letwaf, mer sitruć, nic, pilcu, pil
cuñ, puturyut, regathia, rembre, ret! a, rethma (M),
rethmi (F), rim sić, royo, royo ropo, ruiš, Salpot,
semeć, sitka, sutruć, tebra (M), tibri (F), tembe&
turuć, tembrot, temnet, tentha, tepa tepe, themka (M),
thimki (F), thepca (M), thip ci (F), thikri (F), tira (M),
tum; tuna (M., tuni (F), tura (M), turi (F), turyut ;
(too), phucka ; (of stature) baorā (M), bhāuri, (F),
berga, chepko, dhebra (M), dhibri (F, gedra (M), gidri
(F), jorma (M), jurmi (F); (of children) gadar gu dur,
pedeó (2), potyot, tembe tura (M), tembe turi (F); (of
dwarfs) gadar gudur ; (of creatures) huptić; (of ears)
pitu : (or leaves) sidrić

16	Aurat, zanani, zal, budhi, run, kuri	Aimai, go, maejiu, kuri	Wo- man
17	Mard,	Hepel, herel, hor; (each) horo (2); (little) thurka; (great) jøj, lobab, mahajan, nawab, nobab; (the first) pilchu harain ; (of valour) birbanta ; (who has lost several wives) jomhem. Cf. old, YoUNG	Man
18	Jana	Jon, jona;	Man
19	Machi	Hhako; (to catch) bārsi, hunda, tipka	Fish
20	Pakhu,	Cère ; (species of) bak, bakoli, bana c., bhornga, ere, hué bir, hukes, jihu, kali bor bodoč, kārī c., karkor, kerketa, khergudja, landha galoé, machrenka, phot. c., Sahraj, sugi c., turi c., urić;	Bird
21	Kutta	Kutru, seta, andia seta;	Dog
22	Jon	Se	Louse
23	Rukh	Rukh	Tree

24	Bi	Ita ; (bed, a) aphor gadi	Seed
25	Pat, pata	Palha, pat, pata, patt ^o , s ^o - kam	Leaf
26	Mudh, jar	Buda, buta, da, phedat, rehet, tali	Root
27	Chieerl, chilar	Baklak, chal	Bark
28	Khal	Chal, harta; (to) chal, khal, khal khalao	Skin
29	Cham, jild	Jel	Flesh
30	Khun, rakat, laho, rat	Khūn, māyām, rokot;	Blood
31	Had, hadi	Had, jañ	Bone
32	Cikna	Cikār, thakar bakar	Greasy
33	Anda	AN-bele;	Egg
34	Sing	Dereli; (musical) sal snkwa ; (crumpled) merha d. ; (of brass or copper) dhorori; (to blow) groñ, tutu (2); (a ram's) singa.	Horn
35	Puch	Candbol, candlom	Tail
36	Par, khanb	Il	Feather
37	Wal, bal	Up^	Hair
38	Sir,	Kapar, mund, munda; (chief) marañ, matha	Head
39	Kan	Lutur; (large-lobed) lorpe; (face in front of) kan jari, lutkuri; (hollow below) kan hupa, lutur hupa; (ornament) jhim jhimi, jhingur, jhurjhuri, kanphul, nara ; (ring) cepr ^o , makopi, pagra	Ear
40	Akh	Mêt ; (pupil of) kharen, rajas	Eye

41	Nak	Mū; (to cut off) mti get, makkata; (to blow with fingers) huri; (to make noise through) pho rao; (deformed) hura (M), huri (F), hurwañ ; (straight, narrow) khem seó ; (septum of) nathu ; (discharge from) sere&.	Nose
42	Moonh	Moca, mukha, thotna	Face
43	Dand	Dāt, data;	Tooth
44	Jib, jaban	Alań, cau;	Tongue
45	Panja	Rama; (of crabs) dato, ditom	Cla
46	Pair	Jańga, kata, pao	Foot
47	Goda	Gunthi	Knee
48	Hath	Ti	Hand
49	Dhid, pet	Dojok, lač, marah gada, pet;	Belly
50	Garda, dhoon, gala	Gardan, gola, hotok,	Neck
51	Chati, hik	Chati, koram; (female) bas, nunu, thanel, toa	Chest
52	Dil, han	Boro, ontor	Heart
53	Gurda	Im	Liver
54	Pena	Hofigor, jembet	Drink
55	Billi	Pusi	Cat
56	Cabna	Cabač cubuė, cablau, ger, lasok, lese, pohak, stok;	Bite
57	Wekhan, takan, najar	Iyo ; (to) arit, dorson, najar, rel, sujhau	See

58	Sunan	Afjøm, jom, sunan	Hear
59	Budhi	Badae, barae, bhead, gâwao, badae orom, fiel orom, taphim, thohor, tohor, tuphim;	Know
60	Sona, nind	Gitić, janapit, japit; (to be in a deep) ghumghor; (to wake from) ebhan ; (to rise from) gitić beret; (to be heavy with) lithi; (to move in) as us; (food to cause child to) jana pit k; (to, as foot) katkatao, rahao; (in company with, to) gitić g°rg ; (without) lutuk (2); (a rug for) dari; (lightly) torkal ; (feeling of owe wakened from) andlia ondho.	Sleep
61	Gada, nali	Lala, nala, nali, nali gada.	Ditch
62	Marna	Bendao, goč, jiwi agu, marao, mauta, flét	Kill
63	Tarna	Paera, payar	Swim
64	Udna	Pharkao, udau	Fly
65	Calna	Calak, dahrao, darā, daran, dhamsao, Safigar, taram	Walk
66	Awan, aona	Dara, heč, hijuk; (near) cahatao, habrao, hobo (2), sor, sörbot, sårmbot; (short) atra; (out) odok, tot; (as a spirit) suman; (to pass) hoe; (to oneself) apnao; (£ go) ragrao ; (again & again) heder (2),	Come
67	Lamay paina	LIE, To—(falsify) ere; (down) asan mandao, gitić, kondel, kundel, kundlam, Qbur, ol, payar, sandañ, sayar ; (down, of animals) burum ; (on bare ground) oldhao, tolsah ; (in wait) aher, camke, dabkao, dabrad, dapkao, latao, lokao, lotao, odao, ograo, otor ombak, tarāk; (still) gitić thir, kosmbat; (with arms round) hambut ; (down for night) horuq ol ; (with legs drawn up) hurbañ ; (down in water) jqba;	To lie
68	Behna, bathna	Bethâr, durup ; (with knees on chest) edhe, eher; (long in one position) as maudao, herpat ; (able to, of child) sidup keted ; (huddled aup) lyplupy ; (ow heels) cocofigot, cucumgué, cucufgut, dundu!cut, huehucu ; (on hind legs) comcorok ; (tailorwise) asan mandao, Patgal) do; (on eggs) burum, ubgr; (till prayer	Sit

69	Khalona	Beret, teñgon; (of boys) dida; (of girls) didi; (still) tambhao, teñgo; (on tiptoe) condok ; (ready)	Stand
70	Dena	Cal, em, hajir, ne, ni, tela; (way) arak, bheticok, boskao; (in) alao, elao ; (up) alae, dabinas, mgsgr, teag, tiag; (back) adai, em	Give
71	Kehna	Kakale, lai, men, ror;	Say
72	Suraj	Bela, ber, sitf bonga, cando, siri cando, suraj;	Sun
73	Cand	Dinda cando	Moon
74	Tara	Ipil; (morning) bhurka; (evening) sukar; (4 in Great Bear) budhi park.9m	Star
75	Pani	Dak, pani, rote margm	Water
76	Meenh	Dak, serma dak; fto dak, jari	Rain
77	Dhela, pathar	Dhiri;	Stone
78	Ret, gara	Gitil ; (river) gada gitil	Sand
79	Dharti	Has, hasa ; (the) dharti, ot, pirthimi, pirthi;(fuller's)	Earth
80	Badal	Rimil; (without) phini phik. CLOUDS, FLYING—lahra. CLoudy—dondho, dondrok, doñdoff, gholao, jhopso, jopso.	Cloud
81	Dhuwan	Dhus, dhubgia, jharak, jhg. motka	Brun
82	Ag	Sefigel, sokol; (pan) s. bursi; in a pit) kere s. ; (rain) s. dak; to light a) j ^o ret, s, jol, salgao, sulgau, tingi; (to put out a) irič; (to go out) irič, sqê (2); (to catch) s, lagao, s. sap ; (to push into a) thekao; (to put fuel on a) tingi; (to spread) gotgr; (to become low) harsur; (to warm oneself at) jadwahi, jorok ; (to kindle form embers) s. salgao; (to reduce to ashes by) bhasam ; (to put on a) conda.	Fire
83	Swah	Digir, torgē ; (burnt on ground Jor manure) dahi ; (to reduce to) bhasam.	Ashes
84	Jalna, sama	Atar, chué, ered (2), jalao, jaljalao, jari jarao, jaret, jol, jundi, lo; (in cooking) kharao; (a corpse) dag, dahon, gok sahan; (brightly) parpao; (feebly) Mürü (2), sqê (2), dhursau; (in a kiln) rapak; (incense)	Burn

dhup, dhudhup; (with glowing wood) jhola ; (up)
dahao; (to cause

85. PATH, A–hor; (w thout) bahgr.

85	Rah	Hor; (w thout) bahgr	Path
86	Pahar	Hara; (small) botkoč, dunri; (saddle of) rindir; (a s ^o cred) mand buru ; tend of) buru dauq, m ; (dé. dale) katka kotko, rodgk, sodok rodok, sopgk rodwk ; (level at base of)	Hill
87	Rata, lal, surkh	Arak, rangia	Red
88	Hara	Demka, hariar, lahai dohafi, polhan, taj;(&	Green
89	Pela	Aasañ dak; (pale) barañ (2); (to become, as leaves) pandu	Yello
90	Cita	Barat borot, borof (2), pond, sada; (pure) phik leka; (slightly) polso ; (very) teh (2); (of hair) pandu ; (to become) pond; (not quite) malch ^o , malgot, polso pond, pond macha : (skin, having a) kaila (M), kaili (F), p ^o ndra (M), pandri (F); (on wader side of body) dharra (M), dharri (F); (eyed) pandra (M), pandri (F); (hot) darañ; (heat, to heat to) tao; (to make)	White
91	Kala	Bañgorae, hande, kajar, kari, karya, khaura, flañgal fite, rotha, rothaha;	Black
92	Raat	Minda; (every) jao dinda ; (last) teher minda ; (during) rat birat ; (feeding at) ratcora ; (to retire for) hormo Ql, jaega; (time to retire for) kedok jom sarasatiri; (-mare) birki; (jar) hapuk. Cf.	Night
93	Garam, tata	Chué, dahdahao, gorom, lag, lolo, udgar; (white) darañ;(oppressi vely) khulkhul; (& perspiring) odoe balbal; (& steamy) gjigij;(& painful) tihka tihki, tihkau ; (oy sum) jhala; (water) basañ dak; (to be) dahao, dhipau, dhuka, j9lon. Cf. TASTE	Hot
94	Thanda	Berel, kalha, rabah, rear, rabon raj, sitol, tandha, thandha ; (icy) kankan ; (water) berel dak ; (numb	Cold

		ness from) sitlo ; (weather) rabañ din ; (weather crops) rabi cas; ° dhus; (in the head) manda : § the head,	
95	Bharea, bharpur, pura	Asät ostt, bhor, cemcerem, curu buru, paka, pepreč, pergé, pura, samthul, saprum, seksʔke, tomba;	Full
96	Nawan	Anari, ancín, halj, mira, nāwā, salas, ta ka (Testament) nāwānifm.	New
97	Canga, bhala	Awal, bes, bhage, bhal, bhala, bhalai, bhal (2), bhale (2), boge, khub, lasgar, Q sng (2), sebel, sorom, sostʔk, suca (M), suci (F), sughop, sundar, supot, sustʔk, tgrup, tosgor ; (of food) taribos; (name) lohani, mahatom ; (will) bāihar, haobhao, sonmgt; (natured) bapulić, gambhir, nemor; (tempered) dhima, sujat; (humouredly) riri (2); (looking) cehra, cetha, chakmakia, cikon cokón, kgngkgé, nakhe mukhe,	Good
98	Gol	Dumdumdhukak, dumka, gol, gudmud (2), guland, gulu mulu, gurmuria ; (to turn) acur; (about) anacur, bera biri, berhae, bilhau, gota tandi, lapham, pakar ; (small bodies, a lot of) segg rore; (shouldered) katbuđ, kojo, kutbuá.	Ring
99	Suka	Catcat, hirijit, jhunjhun, jhun jhuni, joko, karcup, karkar, nisot, poder, radhua, roroč, rukar, sitha, sukhle, than thania, thonko; (absolutely) jhunjhun; (over) sitkoč; (not quite) tabuè ; (soil) kuthʔr; (mouth) latak patak; (cough) thi (2); (weather) dhgrun; (land) ton	Dry
100	Nan, nam	Futum; (to) bad, bahna, gol, h na, kahlao, fium, Étum dehoe; (to call by rium ; (to mention. the) mutum num; (to give a bad) hod nam ; (upper) cetan n ; (real) mul n, latar n. ; (nick) bahna n. ; (ill) 9pj9s; (after grandfather, to) mum cgfiget; (sake, a) gorgm; (£ home)	Name

Notes on words:

*75. Word *dak* for water is used in Santhali but not in Punjabi. But Punjabi words, *dakka*, *nakka* (stopping mound), *dhaka*, *dhakan*, (lid) *daf* (water surge), *dhulna* (spilling), *dha* (water corrosion in river), *dako dak* (without interruption) etc. are all seemingly derivation of *dak*.

Endnote

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