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Towards the Alphabetic Structural Grammar of Tamil Language Rajesh Kothandaraman, M.S

Abstract

Tamil, one of the classical languages of India with a history over two thousand years, follows an alphabetic system based on a metaphysical theory. It follows a script evolved from the ancient Tamil Brahmi script, that dates back to 200 BC, to the current form. In this paper we undertake a deeper analysis of its alphabetic structural forms that leads to an understanding of why the structure of Tamil alphabets are just so. We adopt a teleological approach to analyze the script's alphabetic structural forms that show a continuous evolutionary behavior over its history. Starting with a structural grammar for the first alphabet 'A' based on the principles of Truth and Consciousness as expounded by Vallalar and Sri Aurobindo, the pioneers of Supramental evolution, we analyze the structural characteristics of all the vowels and consonants based on the significances associated with them. The vowel structural forms derive their significance from the triune Truth, Consciousness and Delight of Existence, and the consonants from the different states of Existence or planes of Consciousness following the metaphysical theory of involution and evolution. The significance of the peculiarly different structural forms among the vowels and consonants are also addressed and shown to be consistent with the Tamil metaphysical theory.

1. Introduction

Tamil is one of the ancient world languages, among Sanskrit, Chinese, Greek, Latin, Hebrew and Arabic, with a vibrant living status in south of India and one of the official languages of Singapore and Srilanka. The Tamil language alphabets are simple, comprehensive, less in count, with 12 vowels, 18 consonants and a set of 216 vowel-consonants (VCs) generated by the vowel projection onto consonants. The nomenclature used in the ancient Tamil grammar *Tholkappiam* [1] for vowels and consonants point to a deep metaphysical theory behind it. According to it, the vowels are the Consciousness/soul/life, the consonants are the Truth/substance/body and the vowel-consonants are the result of Consciousness activating the body to create living forms. It discusses the details of sound articulation in the phonology section, but with respect to

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alphabetic structural forms it only mentions a general consonant structure through the usage of dot(*Pulli*). The Tamil script showing continuous evolution from ancient times underwent a few minor reformations for easy typesetting of the printing press in 20th century. A scientific approach to understanding of the alphabetic structural forms lead us to archeology and epigraphy.

2. Teleology of Script Evolution

Archeological evidences of historical inscriptions use radiocarbon dating methods to establish the time period of the script. The epigraphical research of Tamil script suggests an evolution of the current script from the ancient Tamil Brahmi script [3,4,5] and the history of Tamil script shown in Figure.1 matches the records of Tamilnadu archeological department [6,7]. A limitation of the epigraphical approach is its conclusions are subject to revision or refinement when newer archeological evidence is unearthed. Also, the investigation of the qualitative aspects behind the alphabetic forms is beyond the scope of epigraphical studies. To understand the qualitative aspects, it is necessary to view the script's alphabetic forms as growing organic entities showing evolutionary behavior instead of viewing them as just plain symbols designated to different sounds. The analysis of evolutionary behavior based on associated qualities leads us to a teleological approach.

HISTORY OF TAMIL SCRIPT									
தமிழ்நாடு	அ	ஆ	இ	ஈ	உ	ஊ	எ	ஏ	ஐ
Century	அ	ஆ	இ	ஈ	உ	ஊ	எ	ஏ	ஐ
BC 3 rd C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 2 nd C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 3 rd C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 4 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 5 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 6 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 7 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 8 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 9 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 10 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 11 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 12 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 13 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 14 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 15 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 16 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 17 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 18 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈
AD 19 th C	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈

Figure.1. Evolution of Tamil Brahmi Script into current Tamil Script

The term "teleology" is used in the area of cybernetics and evolutionary biology to mean "behavior tending towards a purpose". For example, a popular teleological statement that expresses this concept is "the turtles came to the shore *to* lay eggs" instead of "came to shore *and* laid eggs". In cybernetics, the teleological view is generally applied to feedback systems where some of the output energy of the system is fed back as input to correct the behavior with reference to the specific output goal [8]. In a complex problem like the script evolution that is viewed as an evolution driven by social and environmental factors, there exists an inherent teleological element because the form evolution is not caused by an automatic mechanical process of inconscient energy but by an evolutionary will of the secret Conscious being in the exceptional individuals, ancient Siddhas like Agaththiar who discovered the language through intuition and illumination from the high planes of pure Consciousness and symbolized it in an alphabetic script that continued to evolve with the collective support of the community. In this approach, all developments of the past are interpreted as an evolution towards a future purpose. The continuous evolution of the Tamil script alphabetic forms over 2000 years supported by successively improved writing medium from cave inscription rocks, palm leaves, printing-press papers to the state of art digital display systems exhibit this teleological behavior. The script of the language itself being the main carrier of mind's ideas and vital life's emotional feelings, leads us to anticipate that the end purpose of this script evolution should be the final perfection of its symbolic forms to express the ontological and epistemological truths.

Adopting the teleological approach, the fundamental question then to start with is, "Is there really any principle behind the Tamil alphabets that drives the continuous growth of the alphabetic structure towards perfection?" Though the grammar *Tholkappiam* does not deal with structural grammar of alphabets, the author Tholkappiar in the sound-articulation section hints about the existence of internal sound forms that are dealt in the ancient scriptures [2]. The ancient Tamil scripture *Thirumandiram* has important references to internal sound forms associated with the different seed sounds of *Mantras*[9,10] and stands as an authentic source to the study of relationship between sound and sense. Written in esoteric Tamil, it requires a deeper interpretation that can be applied to alphabetic structural analysis.

3. The Structural Grammar of 'A' அ Akaram

Vallalar, the 19th century Saint-Poet and versatile genius, revolutionized the spiritual domain with important discoveries unveiling the esoteric significances behind ancient scriptures like *Thirumandiram*, *Puranas* and epics, and gave grammatical expositions that are not well known among the mainstream language scholars. The prose work on his *Thiruvartpa* - Songs of Divine-Grace called the *Urainadai* [16,11] containing his explanations, commentaries and letters to his disciples, give direct evidences of internal forms and significances of the Tamil alphabets. A record by one of

his disciples, Anandanatha Shanmuga Swamikal (attached at the end of the paper), show Vallalar's knowledge of a greater grammar system based on alphabet's Truth experience, Consciousness, innate quality, sound and structural form leading to 45 grammatical aspects of the alphabet [12]. Vallalar specifically gives the production details and structural characteristics of the first alphabet 'A' called the *Akaram* based on 9 principles corresponding to the different parts of its structure. The details of *Akaram* structure based on [13] are shown in Fig.2. and tabulated in Table.1 as follows:

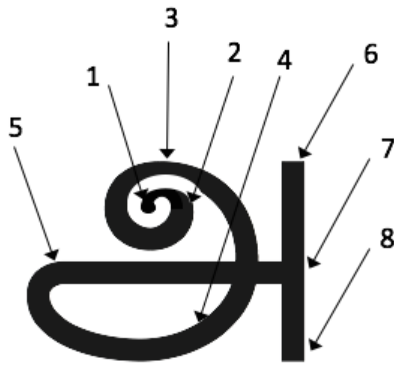


Figure.2 Akaram
Structure

Stage	Principle	Function
1	<i>Vamai</i>	Descending and Involving
2	<i>Jyestai</i>	Curling
3	<i>Raudri</i>	Bursting forth
4	<i>Kali</i>	Folding and rising up
5	<i>Kalavikarani</i>	Progressing downward
6	<i>Palavikarani</i>	Rising up
7	<i>Palabrama thani</i>	Descending downwards
8	<i>Sarvabutha thamani</i>	Fixing downwards and take stand
9	<i>Manonmani</i>	Complete alphabetic form

Table.1. Akaram Structure principles

Akaram signifies the descent of Truth-Consciousness-Bliss to visible manifestation in the physical plane through a process of involution. Sri Aurobindo, the great Indian mystic philosopher-yogi, who unified the different yoga systems into an integral yoga system and reconciled the different philosophical schools, explained the principles of Truth and Consciousness in great detail in his magnum opus 'The Life Divine'[18]. Following Sri Aurobindo's terminology, the nine principles of *Akaram* belong to the plane of consciousness above mind called the Overmind, that at once connects and divides the supreme Knowledge and cosmic Ignorance, formulates the manifestation by successive involutions of Consciousness force into Mind, Life and

Matter. The Overmind in its movement divides the integral, indivisible all-comprehending Oneness into many powers of reality and liberates them into independent action to realize the fullness of expression and consequences. The separated powers have all possibilities of linking and combining into one entity as its constituent powers for manifestation. The 9 principles shown in Table.1 are powers of reality that combine to form the *Akaram* alphabetic form.

Based on the functional description of the principles in Table.1, the first 4 stages belong to higher planes of consciousness and symbolize the Overmind descent into the lower planes. The 5th stage, horizontal line symbolizes the mind principle involved in ignorance, The 6th stage, rising vertical line symbolizes the rising life out of subtle and gross matters that are symbolized by the 7th and 8th stages as the final lapse into inconscience. Interestingly, based on the description of stages 1,2,3 of *Akaram* form, the initial part starts with a spiral of divine proportions (not shown according to exact scale but fits the description) following a Fibonacci series that is frequently observed in the natural phenomena like the arrangement of leaves in stems, branching in trees etc. This initial golden spiral form is typical to involutionary manifestation of many natural creations, showing connections to a deeper law of harmony acting under physical constraints. Overall, the *Akaram* structure perfectly symbolizes its significance of creation or manifestation. Following the definition that Truth contains everything and Tamil Saint-Poet Thiruvalluvar's dictum in the first *Kural*, “*Akaram-the first and root of all alphabets*”, it should be possible to derive the structural grammar of all the vowels and consonants from *Akaram* itself. In the next sections we explore the theory of Tamil alphabetic structural grammar.

4. Alphabetic Structural Grammar

The theory of alphabetic structural grammar follows Vallalar and Sri Aurobindo's approach [11,21] of interpreting the meaning of words based on significance of the composing alphabets. Historical accounts report that Vallalar clarified some doubts of Kanchi Sankaracharya on the Sanskrit grammar and wrote an interpretation of the word “Thamizh”(தமிழ்) explaining its significance when the latter asserted that Sanskrit is the Mother of all languages. Vallalar's explanation[11] adopted a metaphysical approach to derive its significance based on the five composing alphabets Th,A,M,I,Zh and demonstrated the self-referential principle of word-compositionality. He revealed the significance of Tamil as the natural Truth experience of the Perfect Divine Delight essence involving and descending from the high planes of Consciousness through the mental plane (*Tha*) to manifest as human being in the physical plane, followed by the involved essence inevitably evolving back to the Source through a double process of evolution from ignorance to knowledge and further evolution in knowledge, to culminate in a “Supramental being”(Mi) to experience the final state delight of Supreme Oneness (*Zh*)[23,24]. In a nutshell, Tamil is the natural truth of experiencing the Supramental-

Divine-Delight perfection called the Vast-Grace-Light (*ArutPerunJothi*), through the process of Involution, Evolution and Supreme Oneness principle.

A deeper analysis of the explanation shows that it captured the full essence of the principles behind the Tamil alphabetic system classified as vowels(*Uyir*), the art of Consciousness, and consonants(*Mei*), the art of Consciousness manifesting matter. With an understanding of the principles of different vowels and consonants it is possible to map their significances to different structural forms, because the principles should express themselves through different mental meanings in mental plane, sounds in sense plane and forms in material plane. The structural grammar of *Akaram* stands as the foundation of all the vowels showing a similar starting pattern at the origin. The consonants take a generic structure composed of an individual part and a dot affixed above it to denote the spirit's existence above the body. This dot disappears in the VCs denoting the union of spirit and body when the Consciousness activates the physical body to take a living form. The details of vowels, consonants and VCs structural grammar are described in the following sections.

5. Significance of Vowels

The vowels (*Uyir*) represent the art of Consciousness and the three primary vowels *A*, *I*, *U* form the fundamental set with corresponding significances of Truth, Consciousness and Delight. The secondary vowels *E*, *O* are formed by the combination of *A*, *I* and *A*, *U* with their corresponding significances of Truth-Consciousness and Truth-Delight. The vowels *Aa*, *Ii*, *Uu*, *Ee*, *Oo* are just extensions of the primary and secondary vowels. The vowels *AI* and *AU* are formed by the concatenation of *A*, *I* and *A*, *U* sounds respectively.

$$\begin{array}{llll} \text{இ} + \text{அ} = \text{எ}, & \text{அ} + \text{இ} = \text{ஐ} & I + A = E, & A + I = AI \\ \text{உ} + \text{அ} = \text{ஓ}, & \text{அ} + \text{உ} = \text{ஔ} & U + A = O, & A + U = AU \end{array}$$

Vallalar explains the significances of sound *A* and *I* as part of the sound 'Si' in the definition of *Sivam*[14]. He defines the word *Sivam* (*Si+Va+M*) as: *Si*—That expresses as being everything, *Va*—That exists as expressing everything, *M*—Delight filled by both, equivalently Sat-Chit-Ananda or Truth-Consciousness-Bliss. He explains the vowel 'A' *Pranava-Moola Akaram* externalizes the qualities/properties of existence and the vowel 'I' *Arut-Pranava Ikaram* expresses the being into becoming with its self-aware force of existence. The vowel 'U' *Ukaram* expresses the illimitable bliss of conscious existence. The triune Truth, Consciousness and Delight that map to *A*, *I*, *U* are explained in great detail by Sri Aurobindo and the meaning summary of vowels based on [11,18] is tabulated in Table.2 as follows

Vowel	Meaning/Significance	Structural characteristic
அ (A) ஆ (Aa)	Truth, initial being, pure Existence that is beginning, end and continent of all things;	Absolute existence. A: fundamental form; symbolize manifestation of matter from spirit
இ (I) ஈ (Ii) or இ	Consciousness, self aware force of existence, inherent and inseparable from its being, creative of different forces, expressing as infinite forms and endless variation	Relative existence. I: form inseparable from A and showing many variations
உ (U) ஊ (Uu)	Delight of Being, illimitable bliss of existence. The natural state of existence that appears to the human mind and emotion as something neutral. All embracing delight of self existence	Contained existence U: Fully contained form
எ = இ+அ (E) ஏ = இ+ அ (Ee) ஐ = அ+இ (AI)	Truth-Consciousness	Relative-Absolute existence. E: Structural features common to I,A AI: Shifted-combined versions of A,I
ஒ = உ+அ (O) ஓ = உ+ அ (Oo) ஔ = அ+உ (AU)	Truth-Delight	Contained-Absolute existence. O: Combination of U,A to form the macro and micro spiral. AU: Suffixes La to denote final closure

Table.2. Significance of Vowels

6. Structural analysis of Vowels

The structural grammar of vowels is based on *Akaram* as they all start like *Akaram* by spiraling out of the origin point and converging to their respective forms based on their significance. The structural grammar of *I*, *U* are described as follows:

I இ – *Ikaram* the self aware force of existence reflects the truth of “One becoming infinite manifestations” and it is the same conscious force organizing itself differently as mind, vital-life, physical matter and throws into infinite forms. It symbolizes the self

aware force of existence as superconscious and subconscious with mind as the middle term. The horizontal line similar to the *Akaram* symbolizes the mind, sinks into the downward curl to denote subconscious, rises into an evolving spiral as superconscious and ends in the vertical line as manifestation

U ௨ – *Ukaram* the delight of existence reflects the truth of “All containing, All illimitable state”. The descending spiral of *Ukaram* is more contained than *A* or *I* and ends with a horizontal line, without any division or lower principles of ignorance, as a complete possessive state of final perfection to represent the Bliss or Delight of being.

The secondary vowel forms *Aa*, *Ii*, *Uu* are only extensions of the primary vowels *A*, *I*, *U*. The involving spiral at the end of ‘A’ represents the involved relationship of soul to the Divine[22]. Though the vowel *Ii* ௩ structure is inconsistent with the principle “All vowel structures originate from *Akaram* structure”, there are evidences of it written correctly by completing the *Ikaram* form (இ) with an involved spiral as (ஐ). This can be seen in Vallalar’s handwritten copy of *ArutPerunJothi Agaval* (Vast-Grace-Light Call) in 19th century[17], but we see the old Tamil Brahmi form(ஈ) is still in wide use probably due to its simple structure adopted owing to the printing press limitation of last century. A similar involved relation applies to ‘Ee’ *Eekaaram*(ஊ) and ‘Oo’ *Ookaaram*(ஔ). The ‘Uu’ *Uukaaram*(஑) ends with a ‘*Lā*’(ள) to represent the final stage of knowledge, explained more in next section, and a similar logic applies to ‘AU’ *AUkaaram*(ஒ). The *E* formed by the combination *I+A* end with a vertical line similar to *I* and *A*. But the ‘Oo’ formed by the combination *U+A* ends with a micro spiral similar to the starting macro spiral to denote the final contained-existent state of the soul in relation to the Divine. The unique form ‘AK’ ௰ composed of 3 dots represent the 3 principles- spiritual, mental-vital and physical that constitute the human body. This alphabet stands as the bridge between vowels and consonants, with the higher dot denoting the spiritual and the lower two dots denoting the mental-vital (*Manas*) and physical principles.

7. Significance of Consonants

The consonants (*Mei*) representing the art of physical consciousness are considered as the body to consciousness taking different states of spirit, mind, life and physical matter. The human body is composed of successive layers of sheath with soul as the innermost and physical matter as the outermost, with former the highest and latter the lowest in terms of consciousness. Starting from physical matter to sense, life, mind, overmind and supermind, it is an ascending series of substance with increasing subtlety towards the transcendent planes of Truth-Consciousness-Bliss. With physical matter as the base, the sense works with the material force through the physical instruments, the life performs actions of desire and vital life movements through the nervous system and vital organs, the mind operates as a consciousness that measures, limits, cuts out form of things from the indivisible whole and treats them as things in themselves to condition its

operative powers of conception, perception and sensation [19]. Supermind, the Truth-consciousness operates by the knowledge of identity and oneness by seeing the thing as itself and in itself leading to the true and total knowledge [20] called the *Aanma Gnana*-the pure soul knowledge. Overmind is the intermediary between Supermind and mind, divides the total Oneness into many independent forces with power to realize itself in manifestation and links the transcendent planes of Truth, Consciousness, Bliss to the lower planes of mind, life and matter. The pure-soul stands above the overmind and becomes the desire-soul after involution through the overmind.

This ascending series of substance can be mapped to the different consonants as shown in Table.3. The consonants generally classified into 3 groups: hard, soft and medial (*Vallinam, Mellinam, Idaiyinam*) are mapped to the different states of existence: effectual, effectual-causal and causal corresponding to gross-physical, subtle and causal bodies. The medial semi-vowels (*Idaiyinam*) stands as the interface between hard and soft consonants *Vallina, Mellinam* and the vowels *Uyir*. Based on the involution-evolution significance of Tamil, the VC set of *Ka* to *Zha* (க-ழ) is divided into 2 hemispheres, lower (*Ka – Tha* க-த) and higher (*Pa - Va* ப-வ) and *Zh* ழ the highest. They correspond to 7 chords of the being in the two hemispheres and the arrangement can be seen as a process of involution from infinite oneness to individual many (in reversed order of *Zha* ழ to *Ka* க) or as a process of evolution from exclusive individual to infinite oneness (in natural order of *Ka* க to *Zha* ழ). All the higher principles are involved in the physical matter and this evolutionary gradation is necessary for the involved spirit's evolution in matter. The dissolution sound 'M' signifying the cosmic consciousness with overmind plane as its basis evolves the involved spirit towards higher planes of Truth, Consciousness, Bliss. From the evolutionary point of view this is a process of double evolution, evolution in ignorance (*Ka-Ma* க-ம) and evolution in knowledge (*Ya-Zha* ய-ழ) where the consonants *Th, M, Zh* form the nodes of ignorance, knowledge and perfection delight respectively. This Involution-Evolution framework of Tamil consonants is shown in Figure.3

The significance and structural characteristics of the full set of consonants inferred based on Vallalar and Sri Aurobindo's writings are tabulated in Table.3 and Table.4.

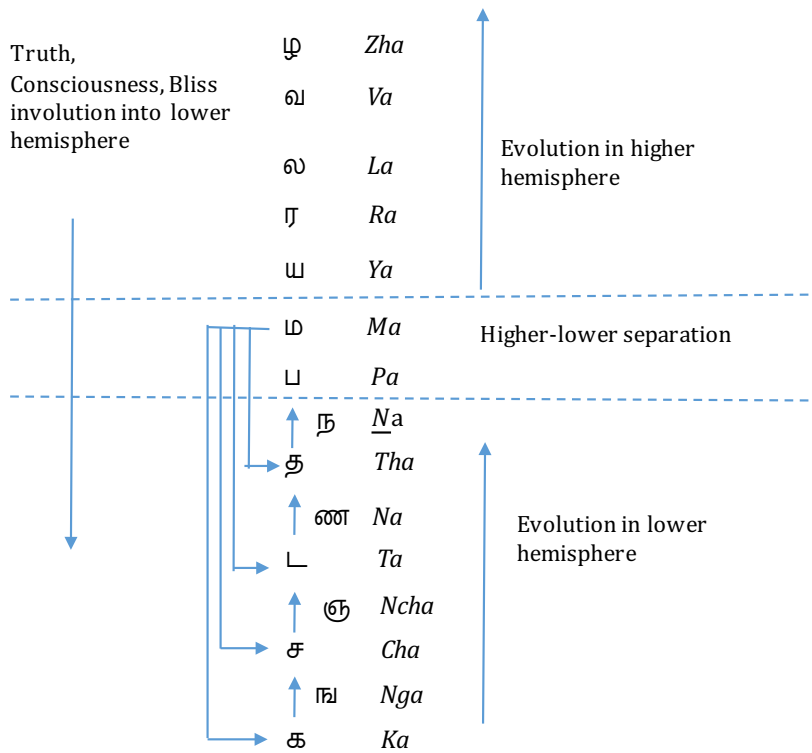


Figure.3. Involution-Evolution framework of Tamil Consonants

Vowel-Cons.	Meaning/Significance	Structural Characteristics
க	Physical Matter, rigidity, sensible form, culminating point of division (Ka)	Involutionary, coiled, closed complete knot in lower hemisphere
ங = ம+க	Evolution of physical (Nga)	Evolution from knot
ச	Subtle Physical, all involving, instruments of cognition (Cha)	Stage before closed knot
ஞ = ம+ச	Evolution of subtle physical, natural sense knowledge (Ncha)	Evolution from open knot and completion
ட	Life, instruments of action (Ta)	Rising form, similar to Ukaram
ண = ம+ட	Evolution of life, Creative process, dynamic sense knowledge (Na)	Effect of M on Ta: association of spirit, mind and life

த	Mind – thinking, reasoning, intellect, finite sense perception by mind's division (Tha)	start of involution in lower hemisphere, division, extended knot
ந = ம+த	Evolution of Mind, desire-soul, jeevan (<u>Na</u>)	Evolution from extended knot
ப	Separation of lower-higher hemisphere (Pa), start of overmind	Start of evolutionary, open top forms
ம	Overmind gnosis, start of One to Many differentiation, dissolution sound (Ma)	Base of higher hemisphere, first sign of involution(loop) towards manifestation
ய	Supermind, pure-soul, Supramental plane (Ya)	Transcendental form, and miniature of I (in lower half)
ர	Vibrant Existence, Supramental plane (Ra)	<i>Kaal</i> extension signifying vibrant life
ல	Similar to Va, but an involved version (La)	Closer to Va but with a dissolving form
வ	All expressive Consciousness and Delight, Supramental plane (Va)	Closer to U with an existential form
ழ	Supreme Perfection Delight (Zha)	Culmination form, ம-->ஒ = ழ combination of M and O

Table.3. Significance of Consonants

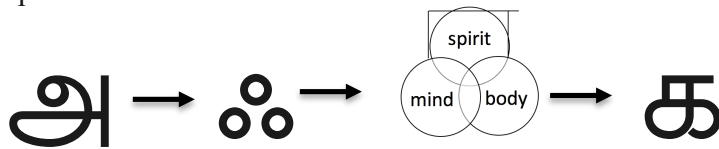
The special consonants ($\bar{L}a$, $\bar{R}a$, $\bar{N}a$ - ஸ,ற,ன) comprehends the entire existence as high, middle and low states of body and complement the consonants (Ra, La, Na - ர,ல,ந) with complementary significance of existence-knowledge($\bar{L}a$), consciousness-action($\bar{R}a$) and effectual manifestation($\bar{N}a$). They represent the causal, effectual-causal and effectual bodies (*Karana*, *Kariya-Karana* and *Kariya*) and are called the *Gnana*, *Pranava*, *Suddha deham*s. Simply, they can be considered as the evolved causal, subtle and physical bodies respectively.

Special Consonants	Meaning/Significance	Structural Characteristics
ஸ	Pure Knowledge, causal body ($\bar{L}a$)	Existent version of La ஸ
ற	Pure Life, effectual-causal body ($\bar{R}a$)	Concatenated effectual and causal version of Ra ற
ண	Pure Physical, effectual body ($\bar{N}a$)	Perfected version of Na ண

Table.4. Significance of special consonants

8. Structural analysis of Consonants:

Based on the significances of alphabets, the associated structural characteristics are tabulated in Table.3 and 4. All consonants take their form below a dot denoting the body state separated from spirit, and the dot vanishes to become VCs after the projection of consciousness onto body to become living entities. The lower hemisphere hard vowel-consonant forms ($Ka - Tha$, க - த) show involutory characteristics with closed top, as they manifest the invisible spirit into visible physical matter through the mental consciousness and life energy. This creation process can be visually represented as the sound அ *A* symbolizing Truth and ஃ *Ak* symbolizing spirit, mind and physical as separate entities (circles) join to complete the manifestation as க *Ka*, by joining the 3 circles in a Venn diagram fashion as shown below. The sound *Ak* generally known as the 'dependent alphabet' (சார்பு எழுத்து) takes its position between the vowel sounds and vowel-consonants. The *Ka* stands for completion of manifestation by involution and fusion of spirit and mind in the physical, symbolized by the 3 lobes of knot where the upper main lobe stands for spirit, lower left and right lobes for mind and matter respectively. The consonant 'Ca', signifying the cognitive senses associated to physical organs shows a structure close to 'Ka' with the right lobe just short of completion. The consonant 'Tha' shows the first sign of involutory characteristic among the hard consonants from 'Pa' to 'Ka', with lower left lobe denoting mind complete and the right lobe denoting physical open.



The soft vowel-consonant forms ($nKa - Nha$ ன - ன) show evolutionary characteristics in the involved forms of (க - த) indicating evolution in ignorance. This evolution in lower hemisphere operates by applying the dissolution sound 'M' on the hard consonants (Ka, Ca, Tha க, ச, த) to dissolve the lower mind principles and evolve them into higher forms (ந, ஞ, ண) by unfolding their knots as shown below.

ம்+க → க → ந
 ம்+ச → ச → ஞ
 ம்+த → த → ந
 ம்+ட → ட → ண

The form 'nKa' shows a rising vertical line that can be inferred as the awakening towards life from matter by dissolution and the 'nCha' shows a special starting spiral like *Akaram* followed by an encompassing and rising spiral to denote the evolution of "all containing sense" of consonant *Cha*. The structure of 'Na' signify the creation process by the aggregation of spirit, mind and life to take form on matter. This is reflected by the association of 3 curls, with each curl as an "inverted and rotated *Ma*", representing spirit, mind and life. The structure of 'Na' shows evolution of the mind principle 'Tha' in combination with 'M' which unfolds the knot of 'Tha', the nodus of ignorance in lower hemisphere. The higher hemisphere consonant forms (*Ma - Zha* ம - ழ) show evolved characteristics of open top with (*Pa-ப*) connecting the lower and upper hemispheres and culminating in the final perfect form (*Zha-ழ*). The higher hemisphere evolution in knowledge is symbolized by the consonants *Ya* to *Va*(ய-வ) which evolve from a miniature form of Consciousness 'I' இ into a form of Delight 'U' உ as shown below. The final consonant form 'Zh' starts with 'M' as the base and ends with 'O' as the destination to denote the Supreme perfection delight.

இ → ய, உ → வ, ம → ஓ = ழ

The consonants *Ra*, *La* bridge the evolution from *Ya* to *Va*, with *Ra* denoting the vibrant existence of soul by taking the form of extended *Kaal* ர, and *La* ல taking a form closer to *Va* வ. Overall, the more involved and grosser forms look more coiled, knotted and closed on top, whereas the more evolved forms look unfolded, free, open on top and tending towards vowel like structure. The 2 exceptions (Ta, Na ட, ண) and Ra (ர) in the lower and higher hemisphere respectively deviate from these general characteristics, because they represent life principle in their respective hemispheres. The 'Ta' ட follows an involved '*Ukaram*' form உ that can be confirmed from the script evolution in Figure.3. and 'Ra' ர follows an existential spirit form, the upper part of the 3-set Venn-

diagram of 'Ka' showing spirit, mind and physical relations, signifying vibrant pure spiritual existence of the soul further explained in the next section. The special consonants $\bar{L}a$, $\bar{R}a$, $\bar{N}a$ show a structure of two-fold consciousness of spirit and perfected being. They correspond to evolved knowledge, vital-life and physical bodies taking a form complementary to La , Ra , Na and reflecting the significance of causal, effectual-causal and effectual states.

This structural grammar theory of consonants can be cross validated by their corresponding sound analysis. The lower hemisphere sounds start from inner most part of tongue 'Ka' and end in outermost lip 'Pa' and nasal sound 'Ma', the upper hemisphere consonants 'Ya', 'Va' sound similar to vowels 'I', 'U' respectively hence called semi-vowels or approximants. Similar to the structural grammar, the lower and higher hemisphere consonants 'Ta' and 'Ra' alone sound distinctly as retroflex and vibrant sounds representing the life principle.

9. Vowel-Consonant(VC) Structural Grammar:

The compound Vowel-Consonants' structural grammar is derived based on the projection of vowel forms onto their respective consonant forms. An example VC set for consonant 'K' க் is shown in Table.5. Projecting the 'A' *Akaram* onto the consonants absorbs the dot and emerges out its "absolute" form (க்+அ = க) as a symbolic representation of Consciousness involution into matter to take living forms. Similarly projecting the 'I' *Ikaram* generates the "relative" form with an adjacent extension from its top like a hook (க்+இ = கி) signifying the inseparable and relative existence of consciousness on the Absolute One.

C/V	அ	ஆ	இ	ஈ	உ	ஊ	எ	ஏ	ஐ	ஒ	ஓ	ஔ
க்	க	கா	கி	கீ	கு	கூ	கெ	கே	கை	கொ	கோ	கௌ

Table.5. Vowel projection forms for consonant 'K'

Projecting the *Ukaram* generates distinct structures that are "fully contained and complete" shown in Table.6. with the contained spiral (க்+உ = கு) or existent endings (க்+உ = சு, த்+உ = து) signifying "contained existence". The prefix structure of VC *Ekaram* (Ke, கெ) is a direct extension of the vowel form (*E* எ) and its elongated prefix form (Kee, கே) is an involved version of the 'E' form with the spiral ending on the top.

short U	கு	நு	சு	து	டு	ணு	து	நு	பு	மு	யு	ரு	லு	வு	ழு
Long U	கூ	நூ	சூ	தூ	டூ	ணூ	தூ	நூ	பூ	மூ	யூ	ரூ	லூ	வூ	ழூ

short U	உ	று	று
Long U	ஊ	று	று

Table.6. Short and Long *Ukaram* forms of different consonants

Among the VC forms of *Aa*, *Ii*, *Uu*, we see the forms of *Aa* ஆ signifying the soul show a special distinct form று 'kaal' suffixed to it. The Tamil root word 'kaal' has many related meanings like leg, breadth, time etc. and an extended form of it is used for consonant Ra(ர) to mean vibrant existence. The true significance of 'kaal' was explained by Vallalar[15] as the symbolic representation of vital life-force, used in the ancient literatures like the *Markandeya Purana* where Lord Ruthra raises the left leg and kicks *Yama* to protect *Markandeya* from death. The esoteric meaning here is the right leg signifies the *Surya-Kalai* right-breadth responsible for body principles (*tattwas*) rising up and the left leg signifies the *Ida-Kalai* left-breadth responsible for body principles going down and hence the cause of birth-death process. When the discriminative knowledge *Viveka* called *Markandeyan* join with the soul knowledge of identity *Aanma Gnana* called *Lord Rudra*, it rises the downward vital life-force from the unconscious ignorance, *Yama* - the Lord of Death, to attain immortality. It is important to contrast the vowel *Aakaaram* ஆ showing an involving curl to denote involved soul with the VCs showing 'kaal' (ex. Kaa கா) to denote involved life. Further, the elongated 'Uu' *Uukaaram* series in the second row of Table.6, predominantly exhibits a spiral or the 'kaal' sign (ஊ, று) to denote the soul experience. Finally, the 'Oo' *Ookaaram* series uses the 'kaal' form (similar to *Ra*) appended to VCs 'E' *Ekaram* form (ஔ → ஔ) to symbolize the soul's final delight of existence. Overall, the VC form expressions are consistent with the principles of consciousness and existence theory.

10. Conclusion

Adopting a teleological approach to analyze the Tamil script evolution, we see an increasing tendency of the alphabetic structural forms towards perfection. This teleological evolutionary behavior posit the theory of alphabetic structural grammar based on the inherent principles of Truth and Consciousness behind the alphabets. The vowels and consonants signifying the different states of Consciousness and Existence, consistent with the nomenclature of ancient grammar *Tholkappiam*, form the core of alphabetic structural grammar.

The vowels *A*, *I*, *U* show structural characteristics corresponding to the significances of Truth, Consciousness and Delight and the remaining vowels exhibit characteristics based on the combinations of *I* and *U* with *A*. The consonants *Ka-Zha* are divided into lower and higher hemispheres based on their involutionary and evolutionary structural characteristics, where the dissolution sound 'M' stands as the intermediary

between lower and higher hemispheres and structurally evolves the lower plane consonants into their next stages by unfolding their knots. This process reflects the significance of Tamil and links the different planes of Consciousness to culminate in the Supreme Perfection delight with the consonants *Th*, *M* and *Zh* as the nodes of ignorance, knowledge and final perfection. Comprehensively, the first 15 of the 18 consonants are classified as three bodies, gross, subtle and causal with five states in each class ($3 \times 5 = 15$) and the remaining 3 special consonants as comprehending the three bodies. The VC structural characteristics are analyzed based on the principle of Consciousness projecting onto the matter and the observations are consistent with the varying levels of expression resulting from the vowels. The peculiarly distinct structural characteristics of some vowels and consonants like *Ii*, *Ak*, *Ta*, *Na*, *Ra* and *Kaal* are analyzed under this metaphysical framework and found to be consistent with the principles of Truth, Consciousness and Delight.

Epigraphy and other modern technological tools can be further used to confirm this teleological evolution in a more rigorous way. The Tamil language metaphysical framework is common to all Indian languages and a study of them based on its structural grammar principles will be an interesting future research work.

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5. அகர உயிரின் இலக்கண நியாய விசார வினாக்கள்

ஸ்ரீசுவாமிகளுக்கு ஆட்பட்ட சமரச வேத சன்மார்க்க சங்கத்து அறிஞர்களில் ஒருவராகிய ஸ்ரீ ஆனந்தநாத சண்முக சரணாலய சுவாமிகள் எழுதுயவற்றுள் கண்டது:-

... புலவர்கள் பலர் அகங்காரத்தால் தம்மை மதியாது இயலறியாது எழுதியவாறே, புலமையிற் பெரியோ மென்னுஞ் செருக்கின்றி ... அறிவறிந் தடங்கியாரிற் சிலர் எழுதியவற்றிற் சில சில விடங்களில் வழுவின்னர். இவ்வழுக்கள் செருக்கால் வழுவியதன்று. விசாரத்தாலுஞ் சிவானுபவ மேலீட்டாலும் வழுவியது. இவற்றைத் தேவாரந் திருவாசக முதலிய உண்மை முறைகளிற் காண்கின்றோம். இக்காலத்து எமது ஆசிரியரை வணங்கி "ஐயரே! தேவரீர் எழுதிய சில வாசகத்தினுஞ் செய்யுளினுங் கருத்துக்கு விளங்கப் புலப்படாமை மயக்குகின்ற சொற்றொடர்கள் சில வுளவென்று எமது மாட்டாமையாற் றோன்றுகின்றது; இதற்கு யாது செய்வோம்?" என்று விண்ணப்பஞ் செய்ய, அவர் "ஐய! நீர் அஞ்சற்க. யாம் எழுதிய வாசகத்தினுஞ் செய்யுளினும் அளவிறந்த குற்றங்களிருக்கின்றன; என் செய்வேம்! விசார வசத்தால் ஆங்காங்கும் தவறினேம். அதனைப் பெருங் கருணையுள்ள எமது கடவுள் மன்னிப்பர். மற்றையரு மன்னித்தல் வேண்டும். யாம் யார்? எமக்கு யாது தெரியும்? புழுவினுங் கடைய புலையரிற் சிறியேம் இதனால் நானுதலுடையேம்" என்றனர். ஐயர் புகன்ற மாற்றம் எவ்வாறென் றெண்ணி நிற்குந் தருணத்து எம்மை ஆண்டிருக்கப் பணித்து மீட்டுஞ் சொல்லுவர்:-

"அகரவுயிர் என்பது யாது? அகரவுயிர்க்கு

1. வரி வரலாற்றின் இலக்கணம் என்னை?
2. ஒலி வரலாற்றின் இலக்கணம் என்னை?
3. தன்மை வரலாற்றின் இலக்கணம் என்னை?
4. உணர்ச்சி வரலாற்றின் இலக்கணம் என்னை?

அதன்

5. உண்மை யனுபவ விலக்கணம் என்னை?

அகரவுயிர்க்கு

6. வரி யுரு விலக்கணம் என்னை?
7. ஒலி யுரு விலக்கணம் என்னை?
8. தன்மை யுருவி விலக்கணம் என்னை?
9. உணர்ச்சி யுருவி விலக்கணம் என்னை?
10. உண்மை யனுபவ யுருவி விலக்கணம் என்னை?

அகரவுயிரின்

11. வரிச் சொருப விலக்கணம் என்னை?
12. ஒலிச் சொருப விலக்கணம் என்னை?
13. தன்மைச் சொருப விலக்கணம் என்னை?
14. உணர்ச்சி சொருப விலக்கணம் என்னை?
15. உண்மை யனுபவச் சொருப விலக்கணம் என்னை?

அகரவுயிர்க்கு

16. வரிச் சுபாவ விலக்கணம் என்னை?
17. ஒலிச் சுபாவ விலக்கணம் என்னை?
18. தன்மைச் சுபாவ விலக்கணம் என்னை?
19. உணர்ச்சிச் சுபாவ விலக்கணம் என்னை?
20. உண்மை யனுபவச் சுபாவ விலக்கணம் என்னை?

அகரவுயிரின்

21. வரிச் செயற்கை யிலக்கண மென்னை?
22. ஒலிச் செயற்கை யிலக்கண மென்னை?
23. தன்மைச் செயற்கை யிலக்கண மென்னை?
24. உணர்ச்சிச் செயற்கை யிலக்கண மென்னை?
25. உண்மைச் செயற்கை யிலக்கண மென்னை?

அகரவுயிரின்

26. வரி யதிகார விலக்கணம் என்னை?
27. ஒலி யதிகார விலக்கணம் என்னை?
28. தன்மை யதிகார விலக்கணம் என்னை?
29. உணர்ச்சி யதிகார விலக்கணம் என்னை?
30. உண்மை யதிகார விலக்கணம் என்னை?

அகரவுயிரின்

31. வரி பொது விலக்கணம் என்னை?
32. ஒலிப் பொது விலக்கணம் என்னை?
33. தன்மைப் பொது விலக்கணம் என்னை?
34. உணர்ச்சிப் பொது விலக்கண மென்னை?
35. உண்மைப் பொது விலக்கண மென்னை?

அகரவுபிரிவின்

36. வரிச் சிறப் பிலக்கணம் என்னை?
37. ஒலிச் சிறப்பிலக்கணம் என்னை?
38. தன்மைச் சிறப் பிலக்கணம் என்னை?

39. உணர்ச்சிச் சிறப் பிலக்கணம் என்னை?
40. உண்மைச் சிறப் பிலக்கணம் என்னை?

அகரவுபிரிவின்

41. வரிக் குண விலக்கண மென்னை?
42. ஒலிக் குண விலக்கண மென்னை?
43. தன்மைக் குண விலக்கண மென்னை?
44. உணர்ச்சிக் குண விலக்கண மென்னை?
45. உண்மைக் குண விலக்கண மென்னை?

என்பன முதலாக இவ் வகர வுயிர் ஒன்றற்கே யின்னும் பற்பல இலக்கண நியாய விசார வினாக்கள் உளவாயின், எம்போல்வா ருணர்ச்சிக்கண் அவ் வினாக்களுக்கு விடை யெங்ஙனந் தோற்றும்? ஓரெழுத்திற்கே யிங்ஙனமானால் பற்பல வெழுத்துக்களுக்கும் அவ் வெழுத்துக்களா லாகிய சொற்களுக்குஞ் சொற் பொருள்களுக்கும் விடை கொடுப்பது எங்ஙனம்? ஆகலில் கற்றோ மென்னுஞ் செருக்கை முழுதும் விடுத்து விசார வசத்தராகிச் சிவபெருமான் திருவருளைச் சிந்தித்திருத்தல் வேண்டும்" என்று எம்மையோர் பொருளாகக் கருதி இரக்கத்தால் இசைத்தனர். ஆகலின் கல்வியிற் செருக்கடைதல் எவ்வாற்றானும் பொருந்தாது.



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Towards the Alphabetic Structural Grammar of Tamil Language