



## TWINKLE TWINKLE LITTLE STAR (THE SCIENCE AND WISDOM OF THIS NURSERY RHYME)

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**ABSTRACT** Twinkle Twinkle Little Star is a nursery song sung thousands of times across the globe in a chorus with a perfect rhyme. This popular lullaby has an inherent deeper meaning in the domains of poetry, science, philosophy and spirituality. A novel way of milking and analyzing the content of the poem with a modern academic mind is attempted, so that the poem can be sung globally with enriched enjoyment and awareness of the beauty of the Nature both external and internal. The presentation will be useful for the study circles of seekers of truth scientifically and philosophically for expansion of awareness of consciousness.

**KEYWORDS :** Nursery Rhyme, Poetry, Science, a Tale of two Birds, STAR, star, Analysis.

### INTRODUCTION:

Nursery rhymes are short and sweet poetry, having a factual technique of capturing young minds, inspiring and engaging them with literacy and music, which in turn boost early language development and build vocabulary with correct pronunciation. The most important use of nursery rhymes is to induce sleep for infants by simple repetitive music and this creates a strong impact on calming anxieties and nurturing family bonds.

The popular rhyme of Twinkle Twinkle Little Star was first published with the title "The Star" in 1806, 214 years ago, as a collection of poems by Jane Taylor and her sister Ann Taylor. The song was sung many a times across the globe in a chorus. It has been written from the perspective of a young child who wonders and addresses the star directly to ask what it is. The music and rhythm stay in the mind of children. However, the milking and analysis of the content helps to enlighten the poetic, scientific and spiritual minds of academic and non-academic personnel while travelling from innocence to awareness as a traveler in the pilgrimage on the planet mother earth. The literary analysis is projected briefly. The reference of scientific analysis is from the article by J Wright. The philosophical and spiritual component is illustrated from understanding of the inner core of the Indian Sanatana Dharma of a tale of two birds from the Mundaka Upanishad.

**Literary Analysis:** Twinkle, Twinkle Little Star consists of 5 verses of "The Star"

*Twinkle, twinkle, little star,  
How I wonder what you are!  
Up above the world so high,  
Like a diamond in the sky.  
Twinkle, twinkle, little star,  
How I wonder what you are!*  
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*When the blazing sun is gone,  
When he nothing shines upon,  
Then you show your little light,  
Twinkle, twinkle, all the night.  
Twinkle, twinkle, little star,  
How I wonder what you are!*  
\*\*\*\*

*Then the traveler in the dark,  
Thanks you for your tiny spark,  
He could not see which way to go,  
If you did not twinkle so.  
Twinkle, twinkle, little star,  
How I wonder what you are!*  
\*\*\*\*

*In the dark blue sky you keep,  
And often through my curtains peep,  
For you never shut your eye,  
Till the sun is in the sky.*

*Twinkle, twinkle, little star,  
How I wonder what you are!*  
\*\*\*\*

*As your bright and tiny spark,  
Lights the traveler in the dark, —  
Though I know not what you are,  
Twinkle, twinkle, little star.  
Twinkle, twinkle, little star,  
How I wonder what you are!*

The innocent child in the poem wonders and addresses the star directly to ask what it is and how it helps the traveler at night. The music and rhythm stay in the minds of children addressing someone imaginary with a surprise and amazement. The words of the innocent rhyme carry many latent meanings scientifically and philosophically. Thus, the poet has beautifully conveyed her inner thoughts to the readers of different times. The melody of the popular lullaby is enhanced due to liberal usage of literary devices such as alliteration, assonance and consonance along with personification, simile and apostrophe etc.

### Scientific Analysis:

Now I know what you are!

Child as a natural scientist; the use of the words how and what essentially summarize what a scientific research is. Every child is a natural scientist with peaceful and inquisitive mind. Children approach the world much like a scientist with a wonder and doubt. They acquire casual knowledge through exploration with empirical instincts. Cognitive research study shows that even little kids react to the ambiguity in a systematic and specific fashion. Their mode of playing is really a form of learning, a way of figuring out how the world works. Their play was just a play both in ambiguous and unambiguous condition. They believe in the cause and effect relationship in the world which is governed by fundamental laws rather than by mysterious forces. Children as they grow older lose their innate curiosity and instincts and stop questioning and investigating the phenomenon in the world which is full of mystery.

Science remains humanity's best tool to understand the universe to survive and flourish. It relies on observation and logical deductions. As the child in us grows older we focus more on the pressing problems by losing interest in the mysteries of the universe. The gaps of ignorance are filled with religion, philosophy and some pragmatism due to the complexity of life.

### Scientifically Accurate Twinkle Twinkle Little Star by Jason Wright

*Twinkle Twinkle Little Star I know exactly what you are*

*Opaque ball of hot dense gas, Million times our planet's mass  
looking small because you're far; I know exactly what you are*

*Atmospheric turbulence, Causes rays of light to bend*

*Blurry light gives views subpar, Causing twinkling little star*

*Fusing atoms in your core Hydrogen, helium, carbon and more  
With such power you shine far, Twinkle twinkle little star*

*Gravity holds on too tight, Nothing gets out, mass or light  
Black holes are the most bizarre, Remnants of a twinkling star*

*Our Sun's average as stars go, Formed 5 billion years ago  
Halfway through its life so far, Twinkle mid-size yellow star*

*Two hundred billion stars all stay, Bound up in the Milky Way  
Dusty spiral with a bar, I know exactly what you are*

*Stars have planets orbiting, Rocky or gassy, moons or rings  
Earth's unique with life so far, Twinkle twinkle little star*

The poem written by Jason Wright (a stellar astrophysicist) takes us from the original innocence of "how I wonder what you are" to "now I know what you are", true to the mission of the science to know the truth and facts. The poem contains many more stanzas with scientific reflections on little star.

**The Wisdom of the Poem;** as Jeeva, Eswara (Purusha, Brahman) and Prakriti (Nature)

The descriptive and analytical study of this lullaby reflects the core of the Sanatana Dharma based on the philosophy of Vedas and Upanishads. The philosophy of Vedanta is the supreme science of knowledge by which being known, everything is known, getting which, there is no more return and no more change based on Jeeva, Eswara and Prakriti as body, mind and atma complex.

The star is a symbolic of environmental awareness beyond the boundaries and limitations of the Nations. The beauty of the poem reflects the melodious lucidity and radiance of the eternal divinity. It can become a prayer itself if the deep mystic is fully grasped of the wondrous soul as a STAR of unconditioned consciousness and the conditioned consciousness of Jeeva prakriti as a star.

For symbolic and practical application of the concept Eswara is depicted as a STAR, the bird above and Jeeva embodied with the attributes of three gunas of sattwa, tamo and rajas gunas is depicted as a star of lower bird in the tale of two birds from Mundaka Upanishad. The two birds are shown to dwell on the same tree as inseparable companions.



*Upper bird = STAR = Paramatma = Absolute Truth = Onlooker =  
Eternal Witness, Devoid of Duality*

*Lower bird = star = Jeevatma = Conditioned Consciousness with  
Trigunas as Sattva, Tamo and Rajas*

Sattva Guna reflects a state of balance in the body-mind activity with self-control and selflessness. Rajoguna reflects a state of intense activity with desire, anxiety and restlessness. Tamoguna reflects a state of mental dullness with inertia.

Brief illustrative reflections from the poem: the song of eternity with divine radiance,

#### **Stanza 1;**

Twinkle Twinkle = twinkle is due to a reflection, reaction and resound of inner radiant light of Eswara (STAR), traversing through the medium of jeeva prakriti star (three gunas of sattwa, tamo and rajo).

How, what and wonder = The eminent words of scientific and spiritual

inquiry as tools of learning.

I and you are = The two birds of Mundaka Upanishad; I is Lower bird conditioned by trigunas eating the fruits of karmaphala and you the Upper bird unconditioned and is in absolute bliss, pure wisdom, sky high in spirituality beyond the duality ever as a witness.

Up above the world so high = Beyond the world of ephemeral (Bhavasagara, Samsara)

Like a Diamond = Purushottama, Dhira, a steadfast Self Luminescent, Impersonal.

In the sky = There are 3 Aakasas (Sky) in Yogic Philosophy.

**Sky1: Bhoothaakasa:** As transient ephemeral physical macro cosmos perceived by the senses, corresponds to waking state (Jagrat)

**Sky 2: Chitthakasa:** Related to micro body of mind, emotions and intellect as a conditioned consciousness to a dream state (Swapna)

**Sky3: Chidakas:** Beyond time and space state of unconditioned pure consciousness of deep sleep as a state of bliss (Sushupthi)

**Stanza 2;** Blazing Sun = Dynamic Rajo guna, nothing shines upon = tamo guna; your little light = Radiance of Prajnanam (Omnipresent, Omniscience and Omnipotent).

**Stanza 3;** Traveler in the dark = The seeker of the truth scientist or a saint; bewildered with loss of destination from ego to heart of the soul is ever grateful to you for the light of life.

**Stanza 4;** and often through my curtains peep = the screen of Maha Maya, ignorance ego; you never shut your eye = as you are an eternal witness with infinite wisdom and bliss.

**Stanza 5;** Though I know not what you are = because you are incomprehensible, imperishable, infinite, impersonal of Absolute Truth and Wisdom (Satyam Jnanam Anantham Brahma)

A Vedic phrase neti, neti, means not this, not this, (neither this nor that) keeps us navigating through the mystery of universal self with a wonder and doubt all the time.

#### **CONCLUSION:**

This poem can be recited as a prayer beyond the boundaries and limitations of nations as a song of eternity with divine radiance of STAR as an absolute truth and is useful for the expansion of consciousness to a higher level perpetually enriched with literary, scientific and spiritual components. It reflects the philosophy of Tat tvam asi, a vedic mahavakya an assertion that you are one with the ultimate reality. The mathematical symbolic of spiritual philosophy of self actualization can be reflected as below.

STAR = unconditioned Universal self = Absolute truth = Purusha = Brahman = upper bird.

Star = conditioned individual self with trigunas = Prakriti = nature = jeevatma = man = lower bird.

STAR = man minus star = upper bird: Man = STAR plus star = lower bird; therefore for self actualization removal of the curtains of trigunas is indispensable.

The only true wisdom is in knowing that you know nothing (Socrates)