

## **Science beyond Science**

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### **Abstract**

Science and scientific principles have sufficiently progressed and self-realized yogis are beginning to reveal yogic processes to achieve extraordinary capabilities that are beyond the reach of science as we understand it today. These two events together make it possible to demonstrate that nonphysical forces can create physical reality. Such a demonstration will bring the glory of ancient science back to India. What is required for progress is an openness of mind, thinking outside the box, and a keen desire to push the envelope and go where few scientists have dared to go before.

**Keywords:** Science, Yoga, nonphysical force, ancient science.

### **Background**

In recent years, Indian media have reported on a disturbing and counterproductive debate among those who believe our ancient ancestors had advanced knowledge and technologies to achieve extraordinary feats such as human cloning, plastic surgery, aircraft design & manufacture, flying, etc., and skeptical scientists who counter that these claims are ridiculous as there is no evidence to back them up [1, 2]. Correctly understood and interpreted, ancient Indian wisdom is both profound and unparalleled. That said, it behooves us to not take what is written in ancient manuscripts at face value but rather to corroborate the claims. It would also be beneficial if scientists were to not scrutinize ancient Indian discoveries from the prism of science as it is understood today.

To explain, science is a product of the rational mind but a lot of the ancient Indian wisdom is not, and therefore, it is better to remain content with the assessment of its claims with six sigma principles. Science is the appropriate body of knowledge to use when the fundamentals of the system are well understood, but when they are not, data-driven approaches for problem-solving such as six sigma have to be used, provided measurements are available. As my friend and associate, Jim Kowall, MD (Neurology, Internal Medicine, Sleep Disorder Medicine), PhD (Theoretical Physics) points out, when system-fundamentals are not well understood and measurements are unavailable or there are uncertainty issues with the measurements, then, enhancing the focus of attention, as for example with meditation, is the only route to new discoveries. Take care though, he says, discoveries made this way must nonetheless meet the rigor of logical scrutiny.

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There is an interesting story of Lord Hanuman in the *Purana* that displays a remarkable depth of ancient wisdom. Seven-year old Hanuman is with his mother in the forest collecting firewood when he asks, why do you collect so much firewood? His mother responds, it is for a yagya. Hanuman asks, so much firewood for a single yagya? The mother answers, there are seven steps in the yagya and it is essential that the fire remain burning until all seven steps are completed. Hanuman asks, Why seven steps, why not six or eight? The mother responds, because it is written. Hanuman asks, written by whom? The mother responds, by rishis. Hanuman asks, but how do they know? This story drives home a very important point in our context: *In the absence of measurements, a scientific theory is but a conjecture*. If the desired outcome of yagya is identified and if it were measurable, then, it should be possible to design six sigma experiments to optimize the process to deliver the best possible state of that outcome. Ancient wisdom has to be put to this test. Take care and preserve the ancient wisdom or traditions even if we are unable to corroborate it, as long as it is not hurting someone; maybe we haven't fully grasped it yet.

The interaction of famed scientist, Nikola Tesla and Swami Vivekananda during the latter's maiden visit to the United States in 1893 provides another tantalizing clue to ancient Indian wisdom. Observed Tesla, "*The day science begins to study nonphysical phenomena, it will make more progress in one decade than (it has) in all the previous centuries of its existence*". He is also reported to have said, "*If you wish to understand the universe, think of energy, frequency, vibration*".

What would have led a renowned scientist to make such radical statements? Swami Ji was a liberal arts graduate and he couldn't possibly have offered Tesla a scientific explanation prompting these observations. I speculate that Vivekananda may have demonstrated the phenomena of nonphysical forces creating physical reality. That then allowed Tesla to connect the dots but he didn't dare make what he learned, public or else he would have been a laughing stock among his peers. This may be a reasoned speculation, not a mere conjecture, as there is additional evidence.

Wikipedia offers several examples of Vivekananda's speed-reading capabilities. Scientists have no understanding of the speed-reading phenomena other than to say, it is a manifestation of photographic memory, but that begs the question, how did he acquire it. There are yogic processes that awaken the intuitive powers which allow individuals to perform such things as speed-reading. Vivekananda's interactions during his maiden visit to the United States in 1893 is another example. Swami Ji's Chicago speech is no doubt heartwarming, but there is nothing so extraordinary in it for the audience to go gagaga over it and yet he received the reception of a rock star. Harvard and Columbia too were so impressed that they made him an offer to Chair a new Department of Eastern Religion. These reactions are telltale signs of a self-realized soul. Swami Ji may well have had the capacity to demonstrate that nonphysical phenomena can create physical reality.

The foregoing discussion has a bearing on Baba Shivanand Ji's favorite expression, *Science beyond Science*. All phenomena that are beyond science as we know today fall in the category of

science beyond science. A lot of ancient Indian wisdom and discoveries fall in this category. In many instances, these discoveries are not a product of the rational mind and so struggling to comprehend them with the rational mind is a futile exercise. Instead, we should focus on corroborating the claims of the discoveries with six sigma principles. Let the scientists and yogis of the future fill in the gap. In the meanwhile, let us put the discoveries to use solve significant human problems.

So, how do we go about proving that nonphysical forces can create physical reality? In the words of this chemical engineer, it would require as raw materials, things that are not yet in the physical realm and a process with which to accomplish the task. There are five elements in nature and at least two technologies for this purpose. The five things are: (1) Prithvi – all that is available in nature but not in physical form, (2) Jal (Water), (3) Agni (fire), (4) Vayu (air), and (5) Akash, or more appropriately, life-force energy. The two principal technologies are: (1) Mantra and (2) Yantra (gadgets). There are temples in South India dedicated to the five elements: (1) Ekambareswarar, TN (Earth), (2) Thiruvanaikaval, TN (Jal), (3) Tiruvannamalai, TN (Fire), (4) Kalahasti, AP, and (5) Chidambaram (Akash) [Source: Wikipedia] but how to convert the five elements to create physical matter is not explained in these sacred places.

Referring to Einstein's famous equation  $E = mc^2$ , depicting the equivalence of energy and mass, there are many ways to demonstrate the transformation of  $m$  into  $E$  but as Jim Kowall points out, the transformation of  $E$  into  $m$  is always indirect.

Sir J. C. Bose found clues to the presence of a certain level of consciousness even in plants and metals. Emerging studies are suggesting that the entire universe may be self-aware, meaning conscious [3]. Therefore, one should not be too terribly surprised to find the presence of life-force energy in the list of five things required for the creation of physical (nonliving) matter. In the following paragraphs, I present two examples. The first example involves performing certain tasks blind-folded, including speed-reading, while the second example involves transformation of one form of matter,  $m_1$  into another,  $m_2$ .

**HH Gurumahan.** On a recent visit to India, I visited HH Gurumahan's Ashram in Thirumurthi Hill, TN to witness the capabilities of fourteen children, seven boys and seven girls, who had been trained to perform certain tasks blind-folded. The tasks included speed-reading, identifying colors, coloring objects correctly, writing in a ruled notebook, riding a motorcycle, finding hidden objects, etc. The author has published a paper on the results of the recent demonstration session [4]. There are several other benefits of the program: (1) Improved concentration, (2) Confidence, (3) Memory, (4) Academic performance, (5) Power of understanding, (6) Attitude towards parents, (6) Self-motivation, and (7) Reduced cell-phone and TV use. Parents enthusiastically corroborated these benefits, one of them telling me that they will soon enroll their younger son in the training program.

In the paper [4], I explain how such training could hold promise to addressing the national opioid crisis in America. I also pointed out in that paper, independent of how many children refrain from falling prey to drugs in adulthood, and reason suggests that many will, the seven benefits identified in themselves are sufficient to warrant widespread exploitation of the program. Such trained children are bound to be better citizens in adulthood.

**HH Baba Shivanand Ji.** My friend Sanjeev Aroskar in Pune and I had the privilege of attending Baba Ji four-day yoga program in 2015. Both of us have several years' of data on ourselves to attest to the efficacy of that program.



Sanjeev Aroskar (right) and I in Pune

Baba Ji has told the audiences that some years ago, he performed what in my mind is the most difficult six sigma experiment ever attempted by anyone: There are seven-hundred shlokas in Durga Saptashati. Recitation of all seven-hundred shlokas takes a very long time. To cut down on the recitation time, Baba Ji set out on a course to identify the Beejakshara (root alphabet) in each of the seven-hundred shlokas that would encapsulate the power of the entire shloka. He said he meditated on each akshar in each shloka, one at a time, uncovering the beejakshar, ensuring to make sure that it was indeed the beejakshar and then moving on to the next shloka. Once he identified all seven-hundred beejaksharas, he meditated on them to ensure that they were correct and finally tested the seven-hundred beejaksharas to make sure they produced the desired effect. Baba Ji said, the effort took twenty years!

Sanjeev also attended Baba Ji's program in Bangalore during the first week of March 2019 in which Baba Ji presented two examples of energy–mass transformation. He said he knows the process with which one metal can be converted into another with the use of matter available in nature. He specifically cited the conversion of silver into gold and copper into silver. I have requested both HH Gurumahan and HH Baba Ji to demonstrate a simpler problem of conversion of E into m.

## Discussion

Physicists say that creation happened with what is known as the Big Bang when the universe was about the size of Planck length ( $10^{-33}$  cm in diameter). The flow of time begins at the moment of

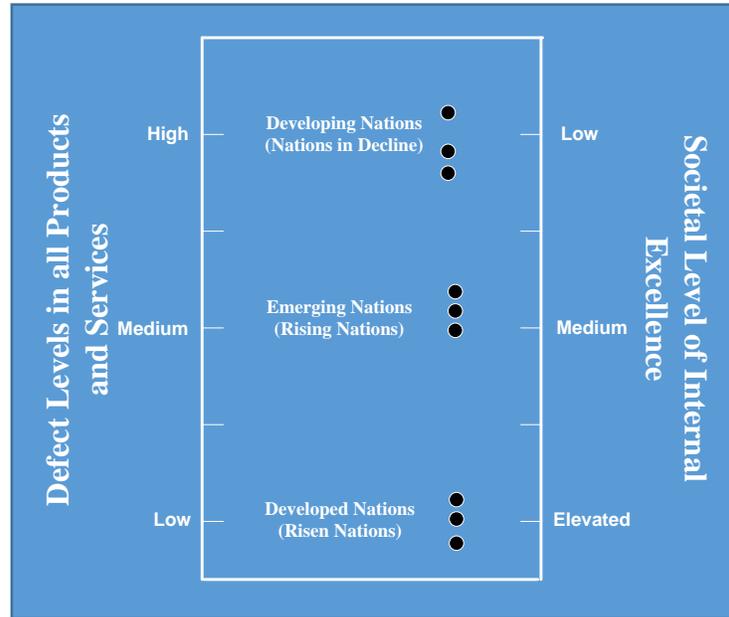
the Big Bang and some 13.8 billion years have passed since then. The universe has been expanding ever since. So, on the one side of the Big Bang is the expanding universe but the intriguing question is what is on the other side. At the moment of the Big Bang, there was only an energy phase present, incredibly hot and unbelievably dense. Amanda Gefter discovered that on the other side of the Big Bang, there is absolutely nothing, a void [5]. So, what caused *nothing* to transform into *something*, the universe? Kowall has published a perspective on this question [6]. Clearly, the transformation of E into m has a bearing on how creation happens. It is remarkable that yogis beginning in ancient times have figured how to transform E into m and I hope the reader concurs, the technology is beyond the reach of modern science. The phenomena of creation may have a profound bearing on the solution of existential issues facing humanity.

Yogis go from proposing a hypothesis to demonstrating it. Scientists on the other hand follow a more elaborate procedure: (1) Propose a hypothesis, (2) Design experiments, (3) Conduct experiments, (4) Collect data, (5) Analyze data, and (6) Test the hypothesis. Six sigma assists in the six-step procedure.

Among the gems of ancient wisdom are some that deal with the mystery of the universe and some that deal with the mystery of life. The core messages of Vedas, Upanishads, and Bhagvad Geeta in as far human beings are concerned, can be summed up in a few words: Rise on the scale of internal excellence. The core message of all incarnations of every faith is the same: Rise on the scale of internal excellence. Internal excellence has nothing to do with race or caste, religion, gender, or national origin. But as soon as you set yourself on a mission to rise in internal excellence, you will be confronted with these questions: (1) how can internal excellence be measured? (So we know when we are succeeding in our pursuit) and (2) what is the process with which to make progress?

Pursuit of internal excellence is a well posed scientific problem and I have solved it. The details may be found in my numerous publications and in my book on the Nature of Ultimate Reality and How It Can Transform Our World coauthored with Jim Kowall [7].

**Making India Great Again.** The two principal reasons why India is not a developed nation today are captured in the plot below and they have little to do whether the mythical Saraswati River ever existed or whether plastic surgery was known to our ancestors in Lord Ganesha's time. In this figure, nations are characterized as developed and developing/emerging on the basis of the defects levels in all their activities, manufacturing and transactional. The only way India can emerge as a developed nation is to dramatically bring down the defect levels in all that it does and minimum-variance seeking strategies such as six sigma can be brought to bear to tackle this problem. The problem is that the performance in the external world is hugely impacted by the level of internal excellence. Boost internal excellence and the external performance will zoom. Ancient India is the home of the practices of internal excellence now corroborated with science. You can see how intricately ancient Indian wisdom is tied to India's future prospects.



**Figure 1.** Defects and Internal Excellence in Developed and Developing Nations

## Conclusion

Experimental investigations will lead to an increasing level of confidence in the vastness of ancient Indian wisdom. It is essential to not make claims that cannot be corroborated at the present time. It is hoped too that the scientific community will begin to investigate ancient wisdom with an open mind and I have the hunch, just as Tesla did, that, then, science will make more progress in one decade than it has in all the previous centuries of its existence. Surely, that will bring the glory of ancient science back to India.

In the meanwhile, the real challenge for India and Indian organizations is to embrace the scientific framework for external and internal excellence [7, 8, 9] for that is the only way India can emerge as a developed nation and become a model for the rest of the world to follow.

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**Appendix:** How the Whole Thing Gets Started by James P. Kowall, MD PhD, Independent Researcher, USA

*Brahman alone is real, the world is the appearance [of Brahman]; and there  
Is ultimately no difference between Brahman and Atman, individual self. Adi Shankara*

Although the focus of this article has been on how E is transformed into m, an even more fundamental question is how the primordial void of nothingness that has zero energy, gets transformed into E. The key is dark energy, which is the accelerated expansion of space that always expands relative to the central point of view of an observer. If we understand the void as an empty space of potentiality, then it has the potential to undergo energetic expansion. Dark energy is the energy that puts the bang in the big bang. The void then has the potential to give rise to the big bang event and the observer is the presence of consciousness at the singularity of the big bang. This explains how the whole thing gets started. If we understand the void as the undifferentiated, unlimited nature of Brahmanic consciousness and our own consciousness as the Atmanic consciousness, then, we really have the potential to do anything. There really are no limitations, which is to say, ultimately there is no difference between Atman and Brahman. Self-realized souls implicitly understand this.