



इच्छन्ति देवाः सुन्वन्तं  
न स्वप्नाय स्पृहयन्ति।



The *deva*-s love the performer of yajña,  
not the one who slumbers.

-*Rgveda* 8.2.18

*Swadeshi*  
*Indology*

# **The Sastra of Science and The Science of Sastra**

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# Outline

Background

Understanding “Science”

Understanding “Sastra”

Science of Sastra

Sastra of Science

Next Steps

# Background

# Relevance

## Pollocks Theses:

Shastras limit creativity, progress

Shastras do not permit “empiricism” in everyday practice

Shastras “limit” progress

Shastra discourage individual exploration

TBFS (Malhotra, 2016)

The Science and Nescience of Sastra -  
(Sudarshan, 2016, SI-1)

What is the motivation/reason behind these claims? Are they supported by facts? How are the facts being gathered? Is the author even qualified to interpret these facts? Is the method of interpretation valid ?

Reason - hubris - “material successes of natural (western) science” - the Halo effect

# **Halo effect on social sciences/humanities**

The primacy of the “success” of western science has not been questioned

The “knowledge” hierarchy - physics, math/engineering, chemistry, biology, economics and then everyone else - social sciences

The machinery - systems, organizations, people - that controls knowledge creation and sustains it.

Being affiliated with the machinery empowers even the social scientist to make erroneous statements and publish/disseminate with impunity

# Key themes

Sastras as “static” - limiting - as compared to “Western Science” - Is this even a fair hypothesis?

Lack of empiricism in Sastras-centric approach - Is “current” science/math even “really” empirical?

Nothing “new” can come from Sastras - What is the western sense of **new**? Is it even relevant? What is the new stuff that has come from western science ?

Sastras as stifling individual agency - Nothing could be further from the truth.

# Points to Ponder

## **Understanding “Western Science” -**

Its genealogy

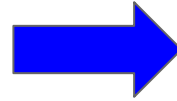
The “gatekeepers” of knowledge - The role of the “Church”

The “tools/methods” of Science - Theory versus Empiricism, Role of logic

The philosophy of science - its boundaries - what can be known? Its methods/ethics etc, dogmas

## **Understanding Sastra**

Its genealogy, structure, motivation, practice



## **The Science of Sastra -**

Sastra is a bigger concept - intertwines the practitioner and the practise - science/humanities are embodied

## **The Sastra of/behind Science -**

What could it be?



# **Science (and Math)**

# The “History” of Science

Was there “real” Western science before the “Renaissance” ? (circa 1400-1500 A.D.)  
?

Attribution to the “Greeks” - Did Greeks really have the “philosophical schools”

Greeks got it from the Egyptians (Cannot acknowledge this! - G.G.James/Asante 2001)

Did Euclid, Plato, Ptolemy exist ? (C.K. Raju)

Did Greeks have an active interest in Astronomy ? (How could you compute without hindu numerals)

# Looking back at Modern day Math/Science

Math - Arithmetic/Algebra from the Arabs to Europe - who got it from the east

Copernicus - (Did he really propose something new - with heliocentrism?)

Newton, Tyco Brahe, Kepler, Euler (What did they do “new” in the western sense?)

Aryabhata solved differential equations numerically - 10th centuries before (now called Euler method)

There are many more pieces of evidence

**Key Takeaway - The history of “Science” as promulgated is not what really happened**

# The Role of the Church

Writing “false” history is a classic technique - especially of “science” has been harmful

Knowledge transmitted from Arabs was either modified, “attributed” to fictitious “Greeks” (who else?), claimed as one’s new invention/discovery

The notion/belief in laws (of nature/written) - is a Christian dogma - (one wonders instead of Newton’s laws we had started with quantum mechanics what would have happened)

Purveyors of “intellectual” genocide - it was either Greeks or their blessed ones - (Inquisition and other crusades - Inquisition/Renaissance went hand-in-hand)

Anything against church doctrine (post 4th C.E) was either destroyed, relevant ones were again attributed to fictitious actors - (libraries/philosophers in Alexandria and other places)

**Key Takeaway - Today’s math and science is deeply influenced by “Christian” Theology**

# Scientific Method & Tools of Science

Primacy of Theory - then empiricism - via observations/iterate - (like the “commandments - if empiricism does not fit - disregard empiricism - Could 250 years to get to Quantum Mech from Newton have been much shorter ?)

The Role of Math - as a machinery for “inferences” in theory - so reliance on “proof” methods - the hegemony/universality of two-valued Western logic (India had a number of different kind of logical systems) - multiple worlds at an instant of time could co-exist and be reasoned with ( 4 - color map theorem - initial enumerative proof was not “officially” accepted) -

Logic as a method of argumentation - (to “convert” the other - Yay or Nay)

Key Takeaway - Current academic machinery still harbors these deep-rooted views

# Social Science Methods

Cambrian explosion of qualitative and quantitative methods - to “bolster” the edifice of theory - (A method for a type of research query)

And where does “philology” fit in? (especially in its latest avatar - 3D philology)

Would the run-of-the-mill “western” scientist even acknowledge this as a method  
Why does it only apply to text ? (not the spoken word)

**Key Takeaway: Pollock’s methods are not even in the “fringe” boundaries of science**

# Philosophy of Science

A self-evaluation/critiquing mechanism - Are they philosophers? Scientists?  
Neither? - No clear “topics” of study - Why/How should we do science?

Feyerbrand, Kuhn, Popper, Cartwright (1999) (and others)

Structure of Scientific Revolutions - as transitions in collective paradigms

Role of Causality and the need for “causal” laws - (Is “darwinian evolution” causal?)

Dogmas of Science - Need for laws, reductionism, need for “mechanism , observer independent of phenomena

**Key Takeaway - Philosophical basis of “science” is still nascent**

# In Summary

The history of science is not what is portrayed.

Science is “controlled” and it is/was a religion.

Should we follow/Is it worth following this science/machinery ONLY?



**Sastra**

# Sastra - the basics - from a scientist's viewpoint

Foundational construct of our dharmic civilization

The “implicit” union of all potential valid “theories” of all things “knowable”, “doable”, practiceable - that are “dharmically” compatible

Sastra structure - 14 vidyasthanas -

Indian Science and Tech evolved in this milieu - different fundamental abstractions, different language and more - (the HIST series (from IF), Dharampal, Joshi)

Sastra evolves continuously as its context of use evolves, practitioner's evolve - its the practitioner's choice to adapt/modify - “Many things are new”

# Key features of Sastra

The “why”, “how-to” is already built in - no “separate” discussion on ethics/morality etc. - the divine is inherent - holistic

Sastra-driven living has been sustained through the yugas vs Science-driven activities of about 5 centuries

Key Takeaway - Science and its methods have only discovered parts of Sastra, many aspects are not even within the purview of “science”

# **Science of Sastra**

# Basic “scientific” aspects of Sastra

Key element - Posits the existence of a primordial consciousness - Everything else is an “evolute” - “matter” is just one of the many evolutes, “Atma” being a fundamental one, living beings (humanity is just one of the many) an auxiliary one

Different darsanas posit different conceptions with these basic evolutes - but - unity in the purpose - “harmonious living” - The “Why” is clear for “Man”

Other concepts (time,space, “I” etc) are constructs with many others

Abstractions and machineries are different - Have been validated by first-person empiricism

Practice of Shastras - an unity - no “dharmic” violations

# In Summary

Sastras are \*Not\* static

The “corral” is very big/possibly infinite - for an individual to explore

# **Sastra of Science**

# Viewing Science as Sastra

What “purushartha” does it enable - only artha and possibly kama (being facetious)

What are its boundaries - Actually, science limits itself in many ways, there are many questions that “science” cannot answer, has no methods to answer etc.

Finally, from a dharmic viewpoint - it has been a total disaster

**Key Takeaway - “Science” is a very small subset of “Sastra”**



# Revisiting the theses

Sastras as “static” - limiting - as compared to “Western Science” - Is this even a fair hypothesis? - No

Lack of empiricism in Sastras-centric approach - Is “current” science/math even “really” empirical? - No

Nothing “new” can come from Sastras - What is the western sense of **new**? Is it even relevant? What is the new stuff that has come from western science ? - No

Sastras as stifling individual agency - Nothing could be further from the truth. - No

# Next Steps

Delineating the sastra/science boundaries for all the “vidya-sthanas”

Collect “living” examples of “Sastra” evolving today - via empiricism, via free-agency of the practitioner - Yoga and many more

Delineating the boundaries of “Western Science” - what questions cannot science answer? What does Sastra offer here ?

What methods can “Sastra” offer for “Science” to adopt

# Swadeshi Indology implications

Need to redo our education system - science, humanities are not separate; with “real” history

How should (OR) Should we - fit into the “western” knowledge production/validation system

Dharmic living - redefining ashrama for modern living

The world needs a “different” point of view - to approach all aspects of human existence - We have one - Need to revitalize it.

**THANK YOU**

