

A Survey: Looking for the best possible way of modern engagement with Traditional Indian knowledge

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Abstract

Why this Survey?

The present state of science philosophy Dialog in the Indian philosophical context can be compared in a certain sense with the situation that prevailed in pre-Newtonian Europe before the advent of the scientific revolution, when the *norms of departure* from the pre-existing (mostly theology-driven) knowledge paradigm were yet to be properly worked out.

The situation today in the context of Science and Indian Philosophy Dialog is not very different as we still don't know for sure the best possible way of *modern* engagement with *traditional* Knowledge. This is mostly due to the absence of any systematic method of assessment of the difference in *epistemic* status between traditional and modern understandings. Moreover, we have hardly any comprehensive idea of what can and cannot be expected to emerge from this kind of comparative discourse. Though the possible overlap between the Eastern and Western knowledge systems continued to be hotly debated in the Philosophical as well as scientific community during the past few decades, no consensus about norms of comparison had been reached yet. With a few remarkable exceptions ^{[1][2]}, most of the discussions of overlap or parallel are intrinsically endangered to result in little more than mere analogy at superficial levels of the two discourses.

Nalanda Dialog under the patron umbrella of Dpt. of Philosophy, Navanalanda Mahavihara, Nalanda, is a platform where scientists and philosophers from around the country meet every year since 2005 to discuss interdisciplinary issues.

During the past few *Nalanda Dialogs* from 2016-2020, we are trying to take the opportunity to have a fresh idea (admittedly only a snapshot) of the prevailing state of the art on the basis of responses to some multiple-choice questions. We invited the participants to respond to a set of questions on interdisciplinary issues. These questions were circulated among them during the Meeting. On the basis of their responses, we have developed a percentile result which can give an idea of the present state of affairs.

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1. Brief retrospective of the Colonial scenario

1.1. The question which is yet to be addressed properly let alone answered decisively

The very question of developing proper comparative norms is well known to have been prioritized for us in India during the British colonial period, basically as a part of the response to the newly acquainted West that had reached India during that time. Of course, the West reached India much earlier at around the 16th century; but it was only during the British colonial phase the reception got a kind of far-reaching social relevance.

The question of developing *comparative norms* played a crucial embryonic role in its colonial versions to generate a typical brand of philosophy of science in the Indian context, which took shape mainly as a part of responses to the West in colonial Bengal. These all *early* responses can be arguably branded as 'Hindu' philosophical as the wide spectrum of tonal variations of all these responses derived largely from resources which had hardly anything *doctrinal* to do with the Buddhist or Jain philosophical store ... let alone others. In fact, the Buddhists, after being wiped out from the Indian academic scenario during the 12th century, had never been able to reorganize themselves until the recent past at least in an institutional sense.¹ Jains, on the other hand, compared to the Buddhists, had been hardly proactive in the history of Indian philosophy so far it is a question of taking an active part in Dialog. This way, the *respondent* Indian philosophy during the colonial period happened to mean something unambiguously of non-Buddhist, non-Jain origin.

1.2. But the question of developing comparative norms was not taken adequate care

It is not unexpected to note in hindsight that the early responses to the West were hardly guided by carefully designed norms of comparison. Quite obviously the early colonial responses *on our part* were being designed amidst a state of euphoric excitement often tinted by *new-born Nationalistic* attitudes of different shades. That was surely not a time to devote patiently to a clear comparative picture of East and West to set up norms.

The new colonial administrative set-up was bringing different sorts of unprecedented disaster in the preexisting socio-economic structure in India. The preexisting styles of thought, as well as the knowledge dynamics nurtured within the framework of traditional thought processes, were getting gradually marginalized. In effect, our collective attitude towards the content of our traditional store started getting *redefined* in a new social context under construction, particularly in Bengal.

But these all taken together it was eventually getting more or less compelling *forus* to make sense of an *altogether new question* in our historical perspective yet –

how much of the 'traditionally' received Knowledge can be integrated with the knowledge system of the-then 'Western'

origin reached India by that time?

Of course, the process of 'integration and synthesis' is an ongoing feature of knowledge dynamics of any cultural origin. But the typically compelling nature of this question during the colonial period was very new at least from the perspective of the Indian knowledge scenario during the last hundreds of years of cultural growth. In fact, the question of cultural synthesis was not a matter of compulsion during the whole of the medieval period. *Mughol* court is known to have initiated the cultural confluence of different orders. What happened was a great assimilation in music, sculpture, and painting as well as philosophical doctrines. Translation of *Upanishads* in *Parsi* by *Dara Sukho* was not a sporadic instance of the exceptional passion of a prodigal prince! But these all medieval confluences can't be compared with the 19th century early colonial scenario in Bengal.

What made the colonial scenario different from other slots of Indian histories was more or less the question of *compulsion*. 'Modern' Indian philosophy as well as the different versions of embryonic philosophy of science in the Indian context, started being written right from the late 19th century, can be better understood as different modes of responses committed to some kind of new cultural compulsion on our part - that was the way we were engaged to our new colonially motivated understanding of our own history.

The notes of responses to the West were composed mainly by the English-educated *Hindu scholars* trained in *Tols* as well as in the newly established centre for modern education- colleges. But the modes of responses used to differ by a wide spectrum of disagreements! It was even a hotly debated issue whether the new University / College systems of learning were at all comparatively better than the traditional learning systems in *Tols*. How much of the *new* scientific knowledge of Western origin should be made room in the new university curriculum along with the preexisting traditional knowledge? These all issues continued to be debated for a long time years after the formation of the first-ever university in Calcutta in 1857.²

Today, looking back into that period long after the settlement of contentious debates, we can understand that all this turmoil about pedagogical *logistics* effectively shifted the focus from issues like developing proper *comparative* norms. [And] consequently, the majority of the resulting *responses* in the question of *integrating* the best of East and West were turned out to be the most curious instances of *epistemic violence* committed to different *inexact* norms of comparison.

So it is, in effect, a little surprise to note that the new-born Indian Universities failed to fuel properly the huge *transdisciplinary* potential ingrained in this newly brewing knowledge dynamics to any *creative* extent of meaningful synthesis. Our pedagogical policies right from their colonial beginning failed miserably to develop *effective* modes of modern engagements with the traditional knowledge store.

2. Is it better today?

2.1.

Nearly 200 years or so later, the role of modern Indian university departments is not remarkably exceptional in nurturing the question of meaningful synthesis of the best of East and West. Truly the consideration of history and philosophy of science in the modern Indian academic scenario as a whole is still like an orphan with almost no parental university or institutional department to patron. So the question of effective possible modes of modern engagements with traditional knowledge continues to bother and keeps appearing in different notes of modern scholars too. We find Christian Coserru to echo a new version of the colonial question –

“Whether theories of knowledge (and Reality) originating in the Indian Philosophical tradition can be extended to accommodate the vast bodies of empirical knowledge we now have. ” [3]

This is not difficult to identify this question as a modern version of the unsettled question we are talking about.

2.2. Outcome of the ongoing *Nalanda* Dialogs in Nalanda

With this colonial as well as a modern background in view, the Nalanda Dialog mission was started in Navanalanda Mahavihara, Nalanda nearly 16 years back. The pedagogical lessons left for us after conducting the series of Nalanda Dialog so far are mainly about being able to figure out some specific areas which seem to ensure more meaningful overlap between *Traditional* and *Modern* (based on Physical as well as Neuroscience....) understandings than what was proposed by the early (colonial) respondents. But at the same time, these all were also about a growing familiarity with the traditional knowledge store and the typical ways of *assessing* this knowledge. It seems that traditional knowledge contents are usually assessed *very differently* in sharp contrast with the modes of assessment of scientific knowledge content and its growth.

It is not possible to unambiguously demarcate between *what is Living and what is Dead* in the Indian knowledge context (D.P. Chattopadhyay wrote a book with this title around 1976). Apart from the reflections on perennial issues, which portions of the huge traditional knowledge store are still meaningful for a ‘modern’ reader to read intact in their original versions (including the latest commentary of course, for other than any historical interest) without any reference to modern comparative scanner? Stated in other words, the question of whether the traditional knowledge should be *retold* keeping *compatibility* with the modern requirement in view or they should be understood in their own terms is largely unsettled

As a consequence, it seems often difficult to make sense of any notion of progress or *falsification* of a significant bulk of Knowledge in the Indian context and we often fail to address point blank the subsequent question of what *precisely constitutes the problem area* which really calls for multiple inputs from different disciplines.

In fact, scientific disciplines, though presuppose a philosophy, in one way or another, are now internally (technically) autonomous to a great extent. Practical bread and butter problems in science are strongly believed to be taken adequate care from within the framework of their *own* technical Languages so far developed, or which is possible to be developed, in principle, on the basis of the existing language itself - modifying or extending accordingly.

So, what then exactly is the *reference area* in the existing body of scientific knowledge to seek *help* from domains outside, which belong technically and pedagogically to other disciplines? What specifically are the *epistemological difficulties*

involved in the process of scientific knowledge formation which can be made *more sense by* ‘philosophical’ solicitation?

As we know that there is a stable body of *Answers* (though differs over a wide spectrum of opinions!) to this question in the context of Western knowledge dynamics.

2.3. All these questions are yet to be answered if referred to the Indian knowledge scenario

All these questions look far more difficult to answer if asked in the context of Indian knowledge dynamics for obvious reasons mentioned here about the difficulties of assessing *Knowledge update*. Apart from pointing out some surface analogies, we are hardly better yet in assessing this question even from a rigorous historical point of view of knowledge dynamics in the Indian context.

We don’t even have yet a common linguistic framework to communicate meaningfully, let alone any possibility to explore ways to *extend* traditional understandings to accommodate within the scope of new scientific understanding. How to do this extension so far we talk in terms of very different frameworks of Languages as well as metaphysical superstructures based on the Languages. Of course, this is not a question of the relative superiority of one knowledge paradigm over the other, but something which can be described as a *lack of exact norms of comparison* so far traditional understanding is compared to the modern scientific ones. ^[4]

These are the questions we are trying to make sense of during the last few Nalanda Dialogs. However, one of the significant lessons of the history of ideas in general and science in particular is that a large portion of philosophers’ typical concerns which have been usually debated so far inconclusively can now be formulated further to figure out *Answers*.

Of course, Humanity is faced with a vast number of problems which can’t be solved quickly enough in terms of definite *Answers* to guide our actions and decisions. But still, an impressive variety of problem areas of *traditional* philosophical concerns are there which can be further translated in modern terms to expect *Answers* (or at least better empirical justification) of large varieties instead of inconclusive debate.

However, amidst the colonial turmoil here, the global panorama of some of the disciplinary systems during the last century has changed a lot which should be taken properly into account to answer these questions. In fact, the *answerability* issue has undergone a huge technical turn after German mathematician David Hilbert. Moreover, keeping the issue of inexact comparative norms apart, if we look at the global scenario of philosophy, we can identify a strange feature rarely discussed until now - the question of an *End* in sight!

3. Hilbert, Answerability issue and a threat of *End* in the sight

3.1. Hilbert’s famous questions

Hilbert famously addressed the Paris International Congress of Mathematicians in 1900 (Hilbert’s tenth problem) the deep

issue of solvability and its obvious links to the nature of mathematics and ultimately human mind. He asked - “ Is the axiom of solvability of every problem a peculiarity characteristic only of mathematical thought, or is it possibly a general law in the nature of the mind, a belief that all questions which it asks must be answerable by it? For in other sciences also one meets old problems which have been settled in a manner most satisfactory and most useful to science by the proof of their impossibility.”³

In effect, this was a question of the viability of physically designing a Truth Answering Machine (TAM) which would answer, in principle, ALL possible questions that a human mind can formulate. It would be just a matter of feeding the question to TAM, and TAM would compute the Answer in finite steps!

Thanks God and Gödel! We know that Gödel proved that no such TAM is ever possible, not even an only mathematical Truth Answering Machine to check the Truth and falsity of whole Arithmetic⁴

3.2. End in the sight of compartmentalized disciplines or beginning for a transdisciplinary discourse?

Modern Western philosophers frequently talk about an *End* in sight! Many recent philosophers of note in the West share the attitude articulated point blank by Richard Rorty that, Philosophy today can no longer be accepted as competent enough to compete with science so far it is a question of giving better answers about the nature of *free will*, *truth*, *epistemology* etc., and in that way had come to an end.^[5] However Rorty obviously meant Philosophy in the Western context. Concerns about an *End* are far from a popular theme in the context of traditional Indian knowledge dynamics. But the temperament of this type of concern can't be escaped.

However, the concern of End is not typical for Philosophers only. Physicists also are not free from the worry of *End*. Stephen Hawking famously told about an End in the sight of theoretical physics nearly 30 years back.^[6] He was hopeful to have a complete consistent and unified theory of the physical interactions by 2000 which could have accounted for all possible observations. Though his prophecy did not work but his point was basically about exhausting the epistemic scope of the existing framework at hand leaving almost no more juice to squeeze from it.

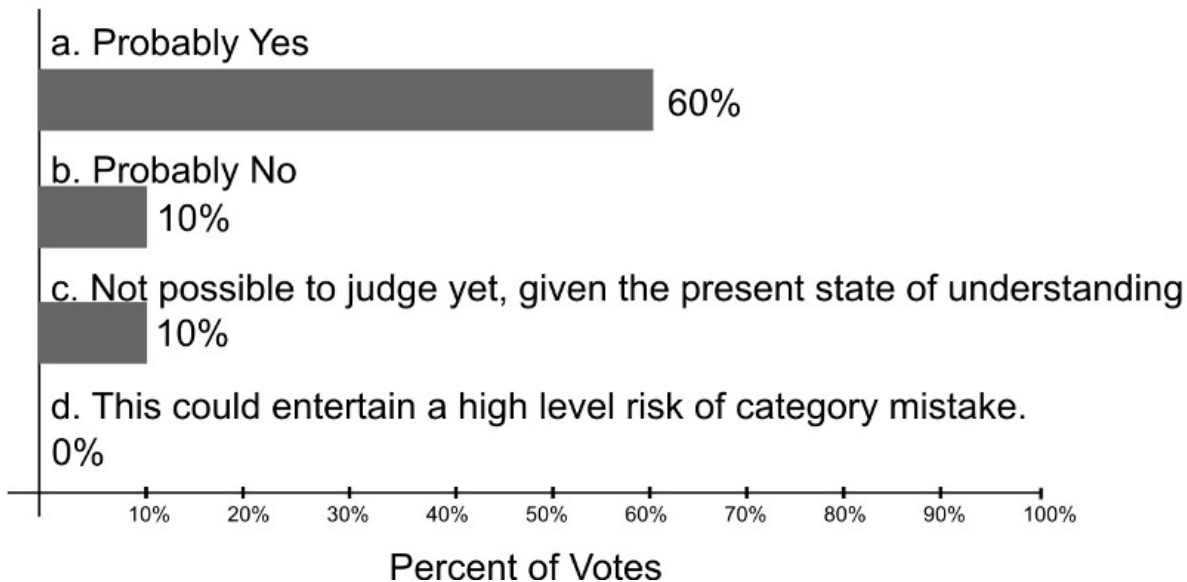
4. New transdisciplinary Frontiers in sight

Quantum mechanical input to the debate

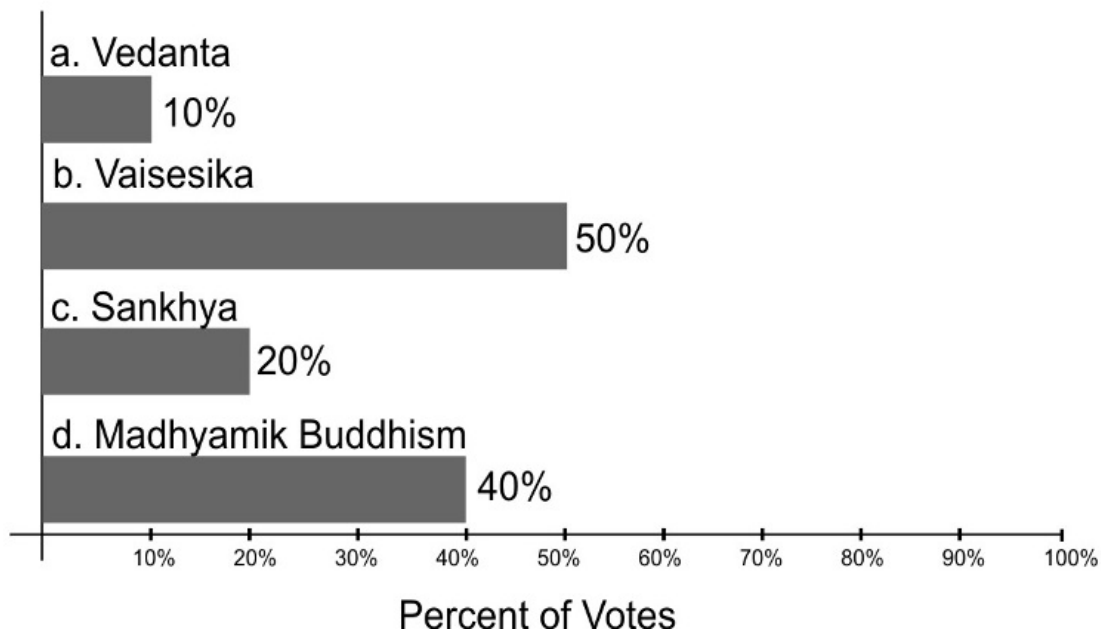
With this vast perspective in sight, Quantum's foundational debate now looks more promising than before. Before the remarkable *Inequality* theorem of John Bell (1965), it was largely a matter of intellectual sophistry between famous old men like Bohr and Einstein. Bell's inequality instantiates how a rigorous theoretical issue, which is almost at the heart of the debate between *Realists* and *Phenomenologists*, can be tested by experiments. In view of these experiments, famous physicist E M Purcell in his *Harvard* lecture (1987) expressed gratification that now a philosophical issue is possible to be settled in Physics Lab!^[5] So now we are provided with a new perspective to make sense of the issue of *answerability* as well as the question of End.

5. Percentile Results

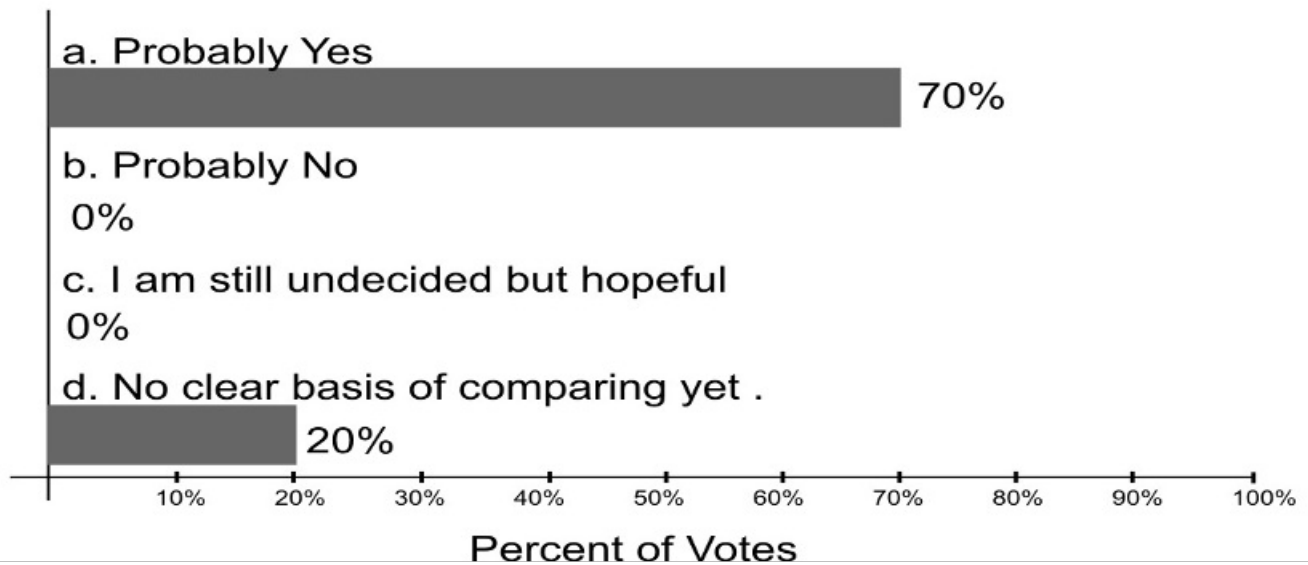
1. Do you believe that the Answer to the different epistemic and ontic troubles in Physical science can really be found in traditional knowledge store?



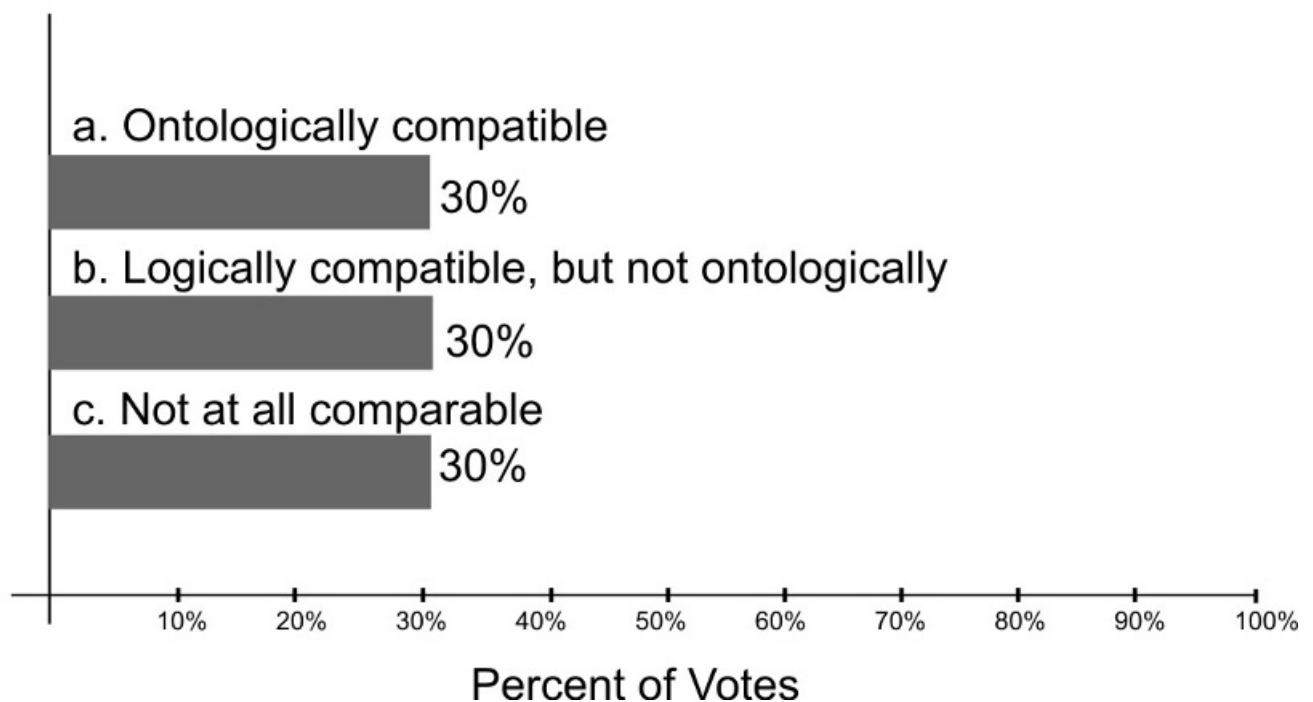
2. So far the epistemic troubles of knowledge formation in Physics are concerned, which schools of Indian knowledge system is most promising to help?



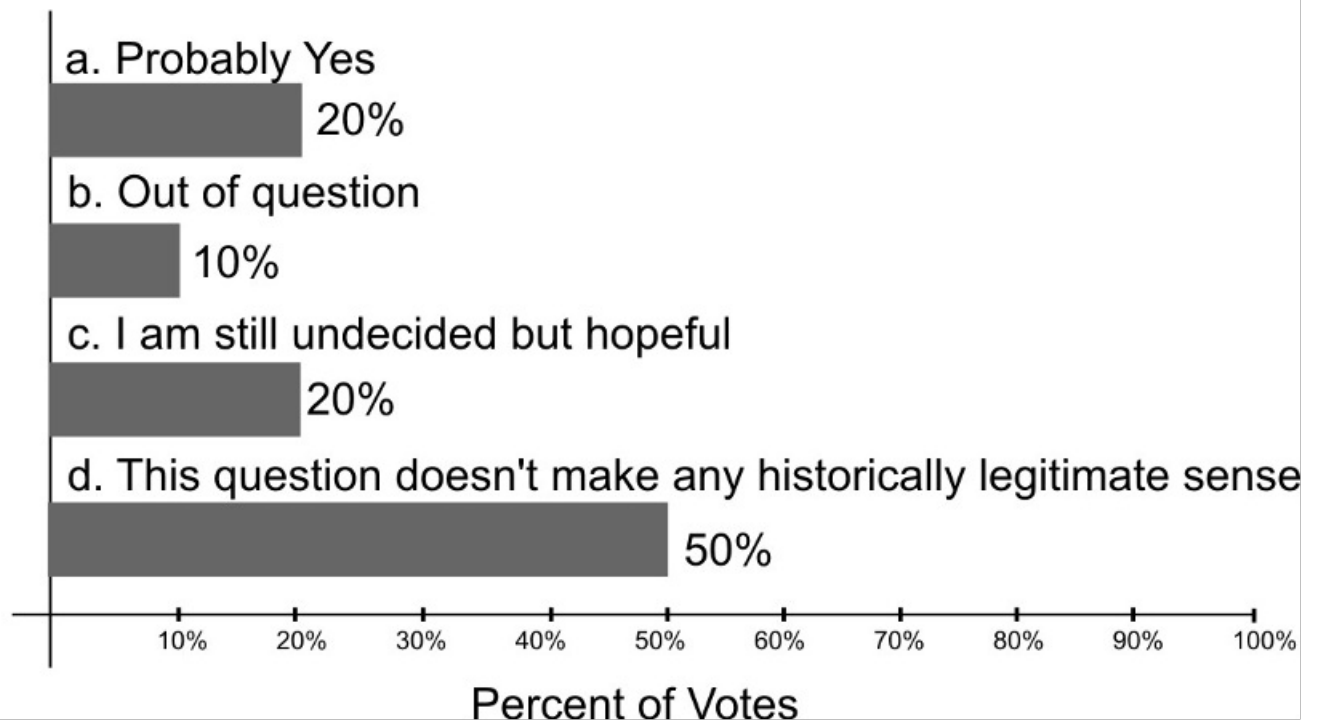
3. Do you think that the concept of *Chitta* , *Aham* , *Atman* , *Antahkaran* discussed extensively in many Indian systems of knowledge , can be made better sense today within the framework of experimental Neurosciences ?



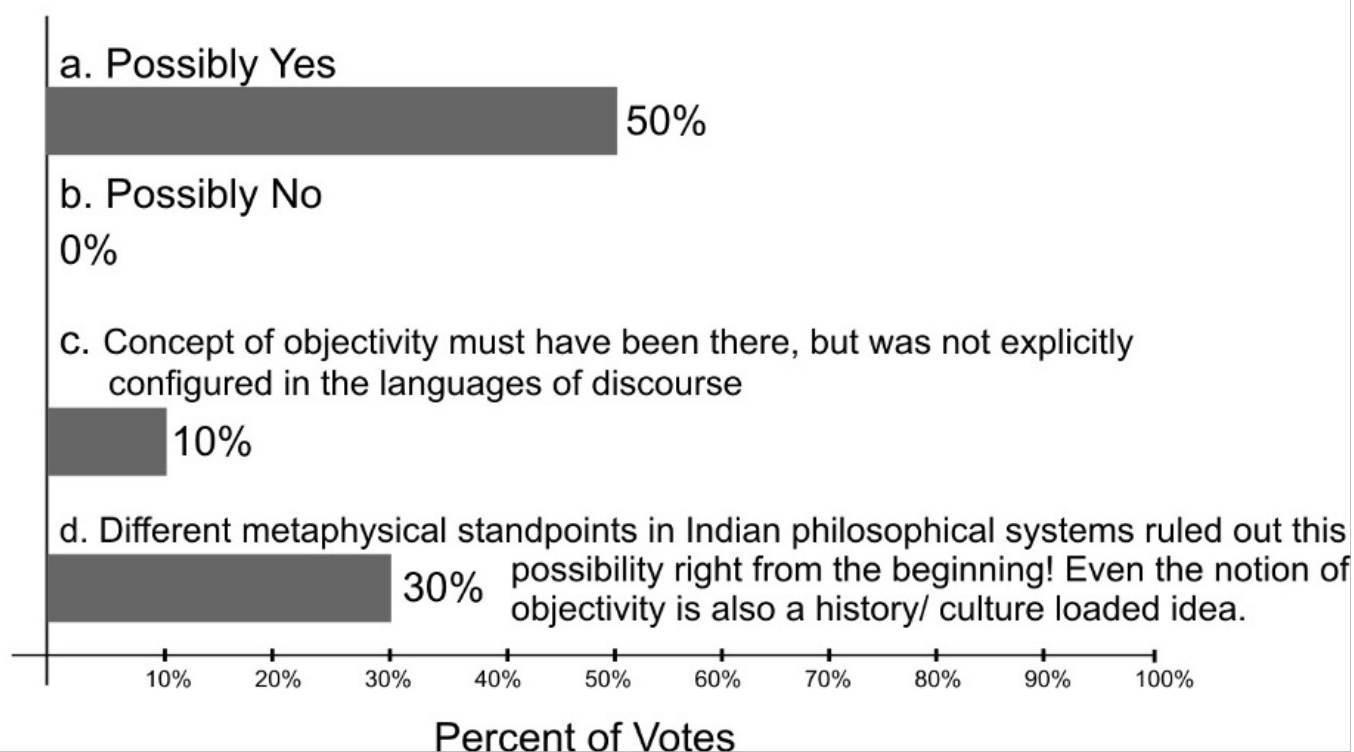
4. Do you think that the concept of *Anu/Paramanu* talked about in *Vaisesika* is ontologically compatible with what we understand now in context of *Atomic Theory in Physics*?



5. Do you subscribe, as sometimes claimed that Newtonian Physics can be reconstructed on the basis of *Vaisesika* categories?



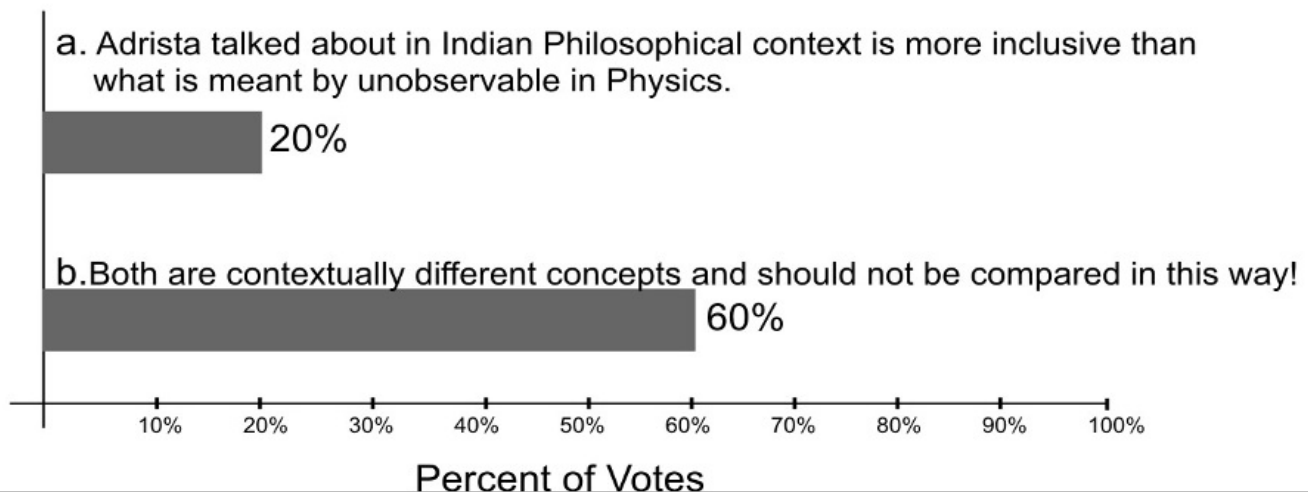
6. Concept of objectivity in West as we know is an outcome of semantic inversion in as late as the 17th century in West which was further translated in mathematical terms within the framework of a gradually evolving idea of mechanical Universe . . Do you think that a notion of objective out there reality in modern western sense was possible at all in Indian philosophical context?



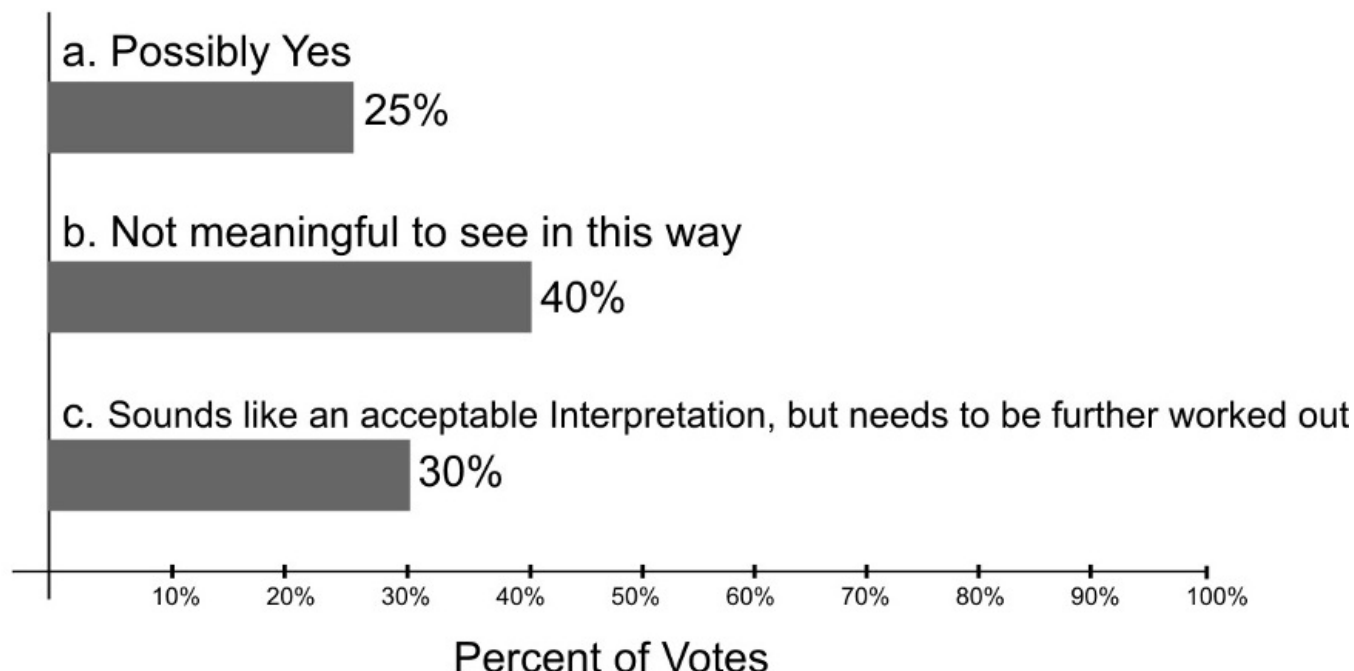
7. Adrista , Apurva , Atisaya are the technical terms in Indian Philosophical context which roughly imply something which cannot , in principle , be observed , but need to be posited .. Physics deals extensively with these types of concepts. In fact in Physics , the nature of Adrista is primarily presupposed (picturized as far as possible !) on the basis of prior experience / experiments to build up a working Model before it is translated into mathematical terms .

What is the nature of Adrista Indian Philosophers talked about?

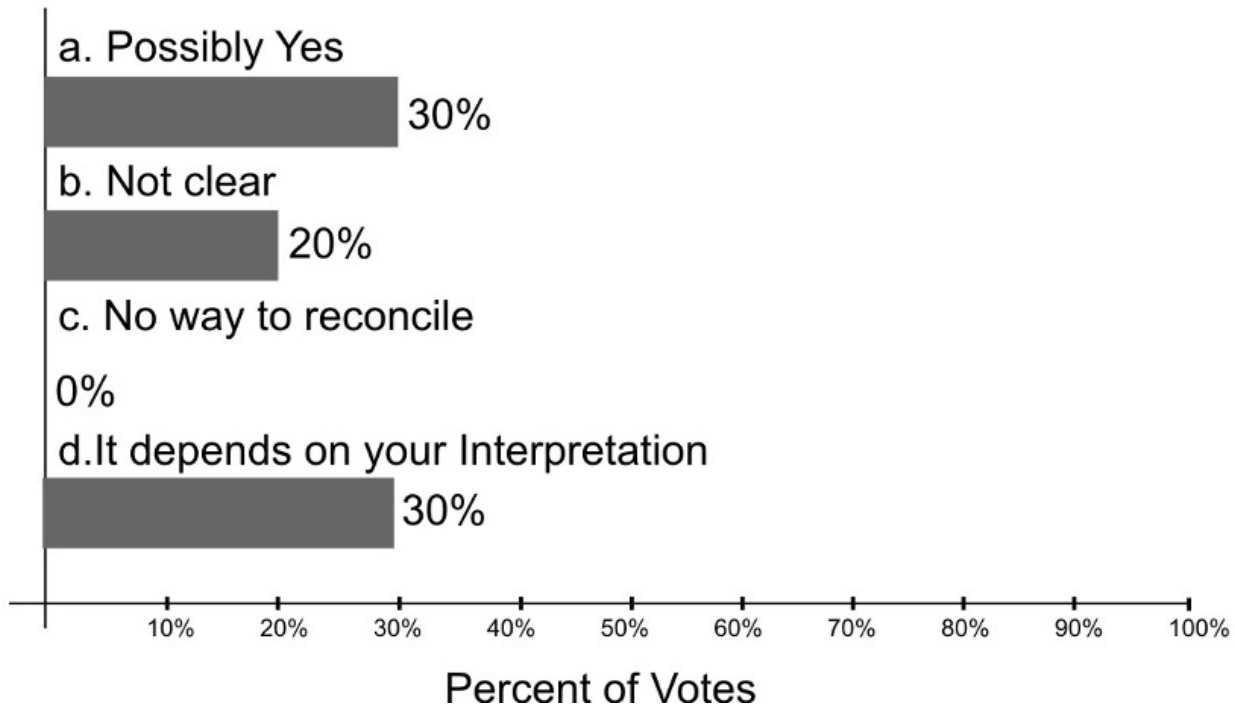
Is it also Law bound ? But what distinguishes a law of Physics from other law-like Truth about the world ?



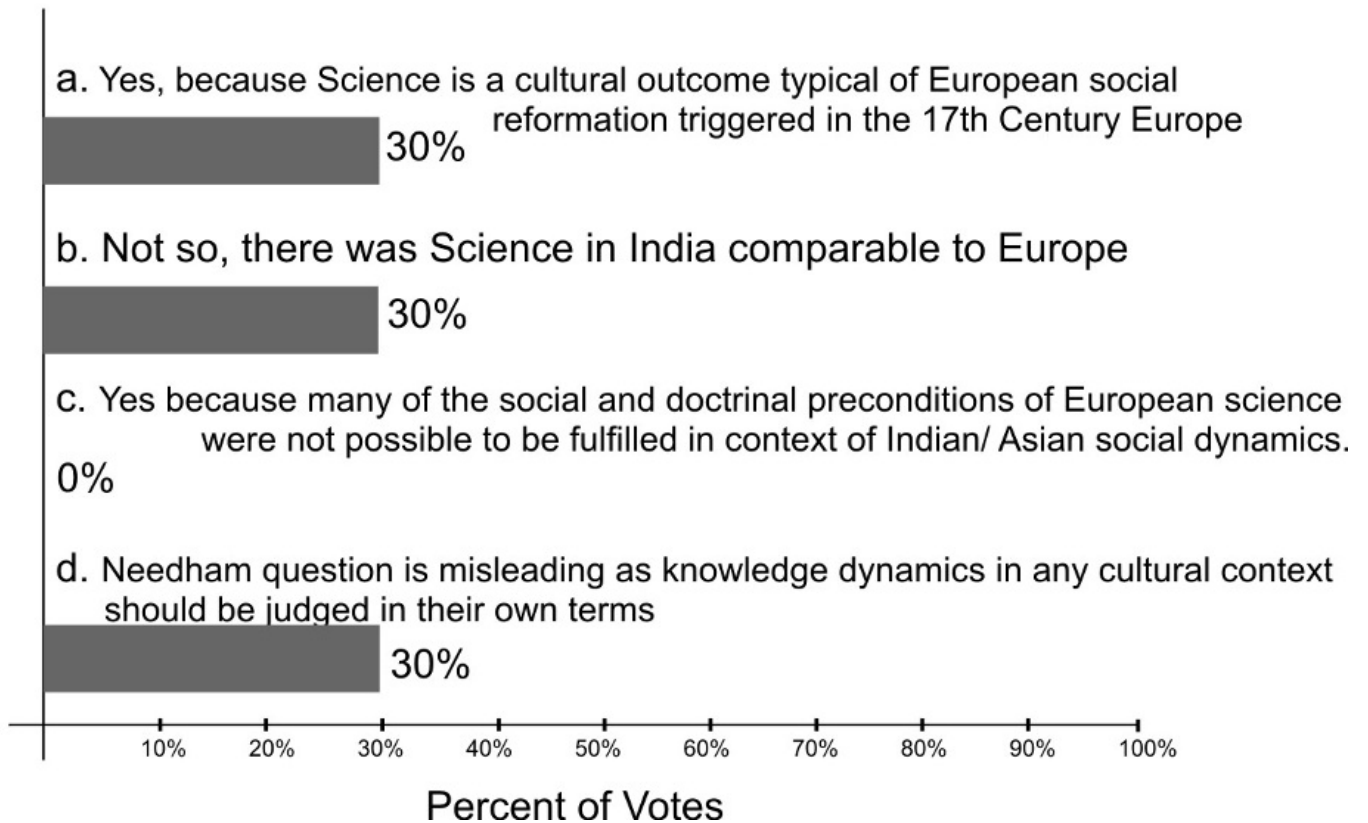
8. Unobservable in Physics are law-bounded! They enter in Natural Law which is believed to be a signature of invariable mechanism. Is it in a certain sense we can conceive *Adrista*, *Karma*, *Samskara* and *rebirth* are also related in terms of an inevitable human-centric cosmic principle?



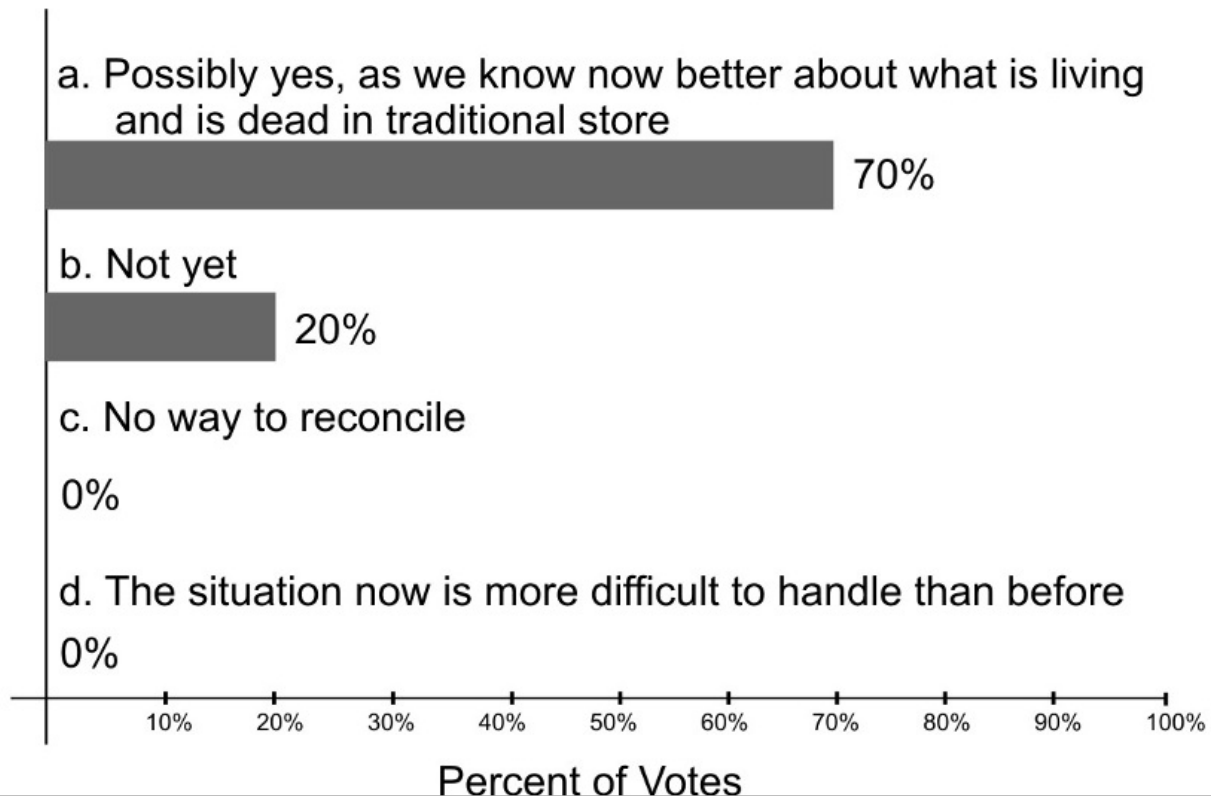
9. Is there any suggestion in this regard in Indian Philosophy to reconcile *Free will* and *Karma*? Though there was surely no idea of the universe as a blind mechanism in western sense, it was held by many that that the short duration of individual life time is a part of a huge recurrent cycle governed by *Karma* and *Sanskara*. How to accommodate free will then?



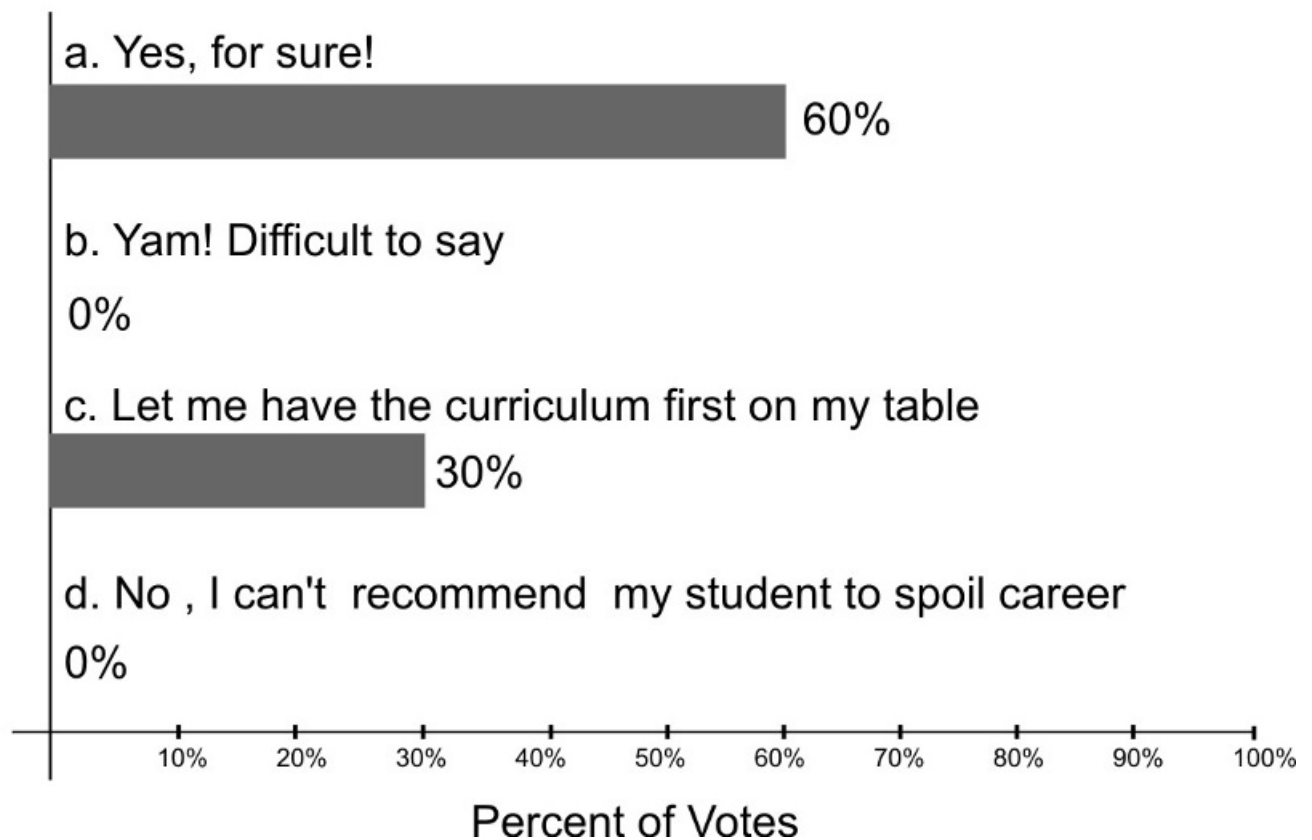
10. Do you think *Needham question* presuming compatibility is misleading?



11. Finally nearly after 200 years or so are we in a better position to settle the colonial issue about a *best (effective) composition* of 'traditional' and 'modern' in a present curriculum ?



12. Would you recommend your student to take this course if ever available?



13. Do you think that there is still a better hope of Indian Philosophy than western to give answer to these issues comparable to science particularly keeping in mind the rapid growth of Neuroscientific paradigm?

a. Yes, there is still a better hope!



b. No way! Philosophy whether of Eastern or Western origins, can only be seen as a prelude to science. Present state of Philosophy is the last phase of a long evolutionary process !

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c. Philosophy has a place in Today's perspective, only if it is based on current state of scientific developments



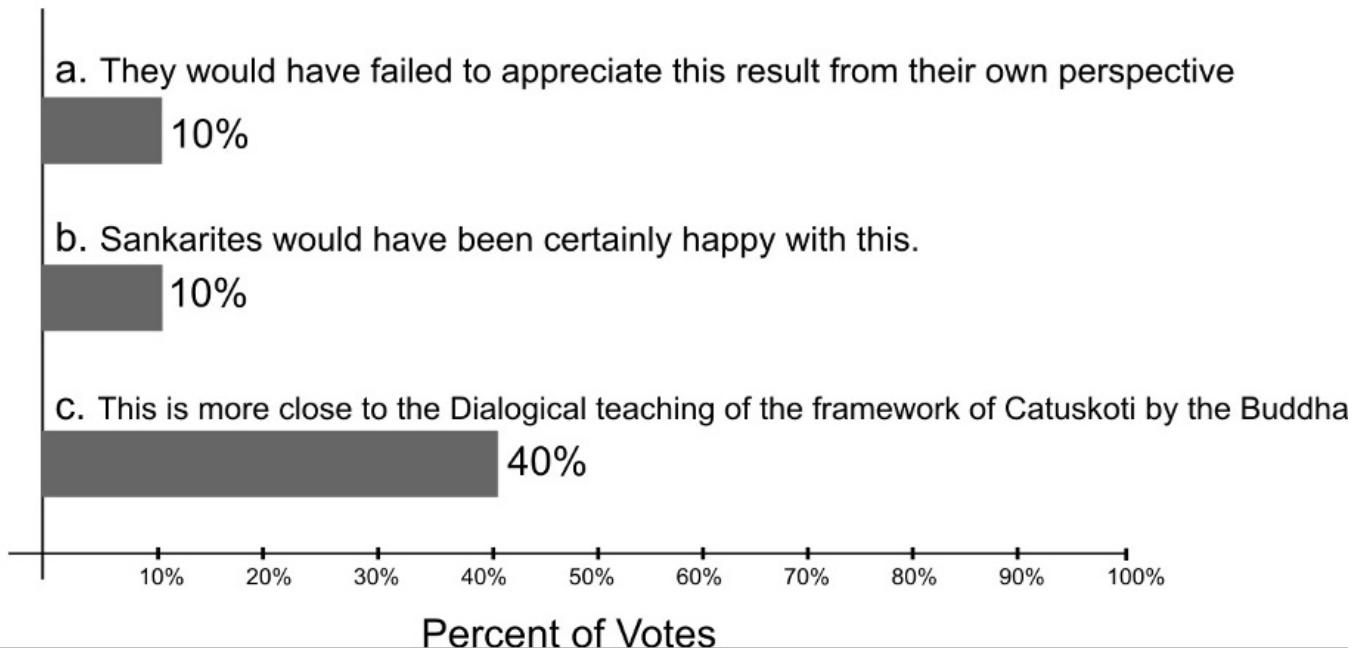
d. This kind of comparison doesn't make much sense as everything can't and shouldn't be judged only in scientific "answerable" terms. Rather the Dialogical strategy of Buddha is a better way to deal with a question!



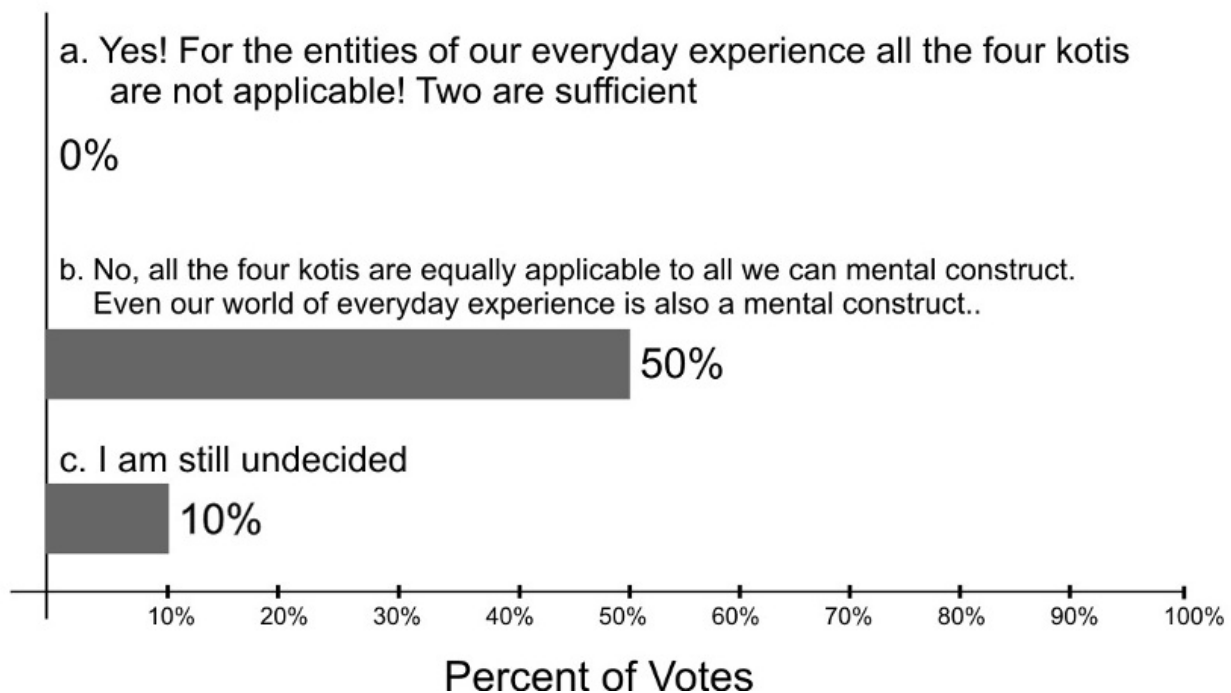
10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent of Votes

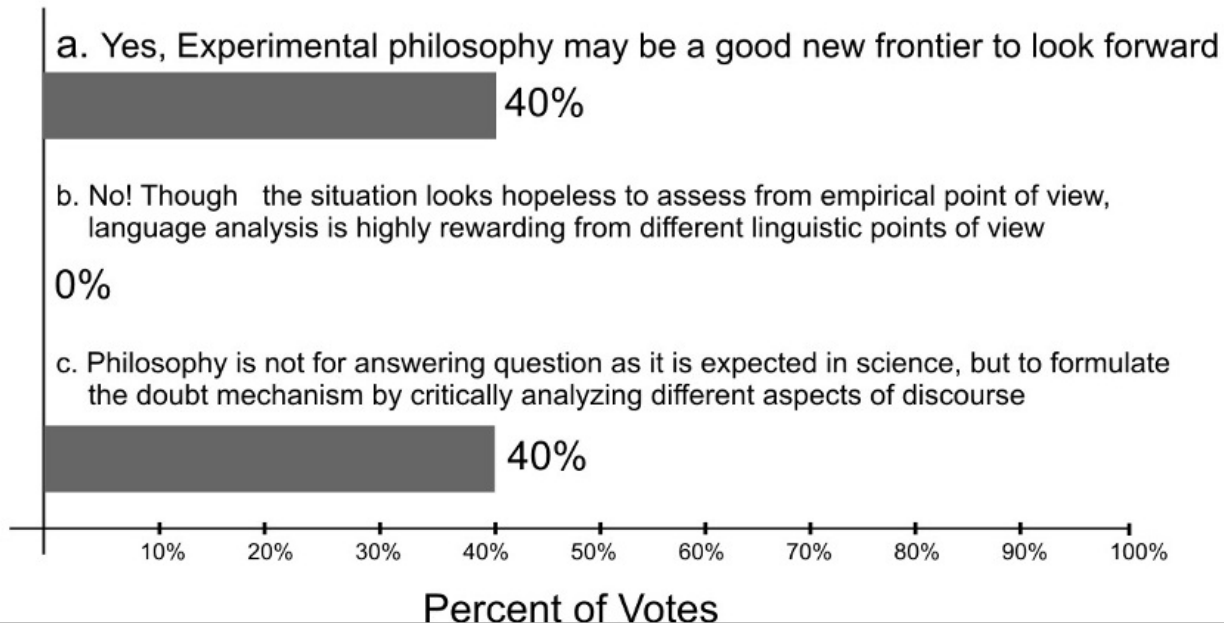
14. Though sounds anachronistic, but it is quite intriguing to anticipate, what a traditional Indian Philosopher would have responded to Gödel and other type of impossibilities!



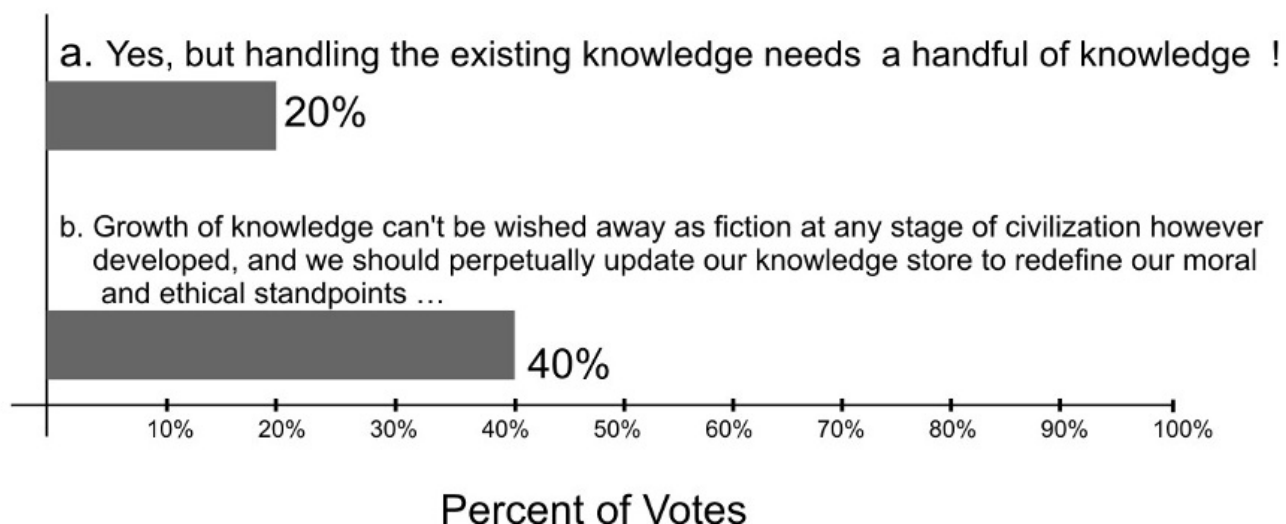
15. Do you think that the Dialogical argument of Buddha within the framework of *catuskoti* is best fitted for the metaphysical questions applicable to the existence of Soul and like , but not for the entities of our ordinary experience around ?



16. Do you think that traditional *Philosophy*, often divorced from the benefit of empirical feedback, is intrinsically endangered with a similar risk of being intellectual sophistry once entertained by the quantum foundational debate?



17. Finally what knowledge is possibly meant for! In fact the perennial questions will always be there unanswered, and, on the other hand, we have a lot of knowledge already in store (though not practically implemented!) about what a good life would be! So do you think that we need any more knowledge to conduct a better life other than engaging the existing ones in store?



Acknowledgement

We are thankful to the participants of the Dialog for their patient cooperation We also extend thanks to the Department of

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Notes:

¹ Gradual disappearance of Buddhism from India ever since the 12th century is a permanent stretchmark in the history of Indian philosophy. Apart from the most frequently talked about Islam invasions and their chain of consequences, there were reasons internal to the-then *ritualistically transmuted* practices of the Buddhist community itself. The more detailed scenario is yet to come. But Indian knowledge dynamics *after* the Buddhist ransack had surely lost its prior balance.

² Debate about the relative merit of the highly centralized new University systems compared to the decentralized traditional learning hubs like *Tols* happened to be a significant part of our colonial reorientation. Though this is not a much talked about issue today, this was a major issue for almost all colonial administrators and academicians. One of the prominent signatures of this unsettled debate can be read in the very foundation of *Bhagbat Chatuspathi* in 1895 under the leadership of *Durgacharan SamkhaVedantatirtha*. This *Chatuspathi* was known to be a specimen of Satischandra Mukherjee's creative imagination as a part of his brainchild *Don Society*. This was intended to be a free Hindu Public Religious Institute for persons willing to study *Hindu* philosophy and *Shastras* in Sanskrit. One should not miss to note that this was after 37 years of the establishment of Calcutta University. In retrospect, it seems that the secular system of University learning took a long time to get its root down into the psyche of the general public here.

For further details on *Don Society* see

The Dawn A monthly Magazine devoted to Religion Philosophy and Science

Vol I, March 1897-Feb 1898, *Ed.* S C Mukherjee *Reprint Editor:* Madhabendranath Mitra, J. U. in collaboration with *National Council of Education, Bengal*

³ Hilbert's question is fundamentally about the nature of our thinking process - whether it can be entirely reduced to any *algorithm* or not. Parallel to the development of more and more powerful methods of mathematical proofs during the end of the 19th century, some kind of *epistemic pessimism* was also hovering over the Austro-German academic climate. This *pessimism* was basically about the scope of Newtonian science and was voiced succinctly in the famous *ignoramus ignorabimus* (we do not know, we shall never know) of the noted physiologist and philosopher of science Emil Du Bois Reymond. We know that the situation started changing with the sequence of events following the resolution of *Black Body radiation* in 1900. Hilbert effectively challenged the *epistemic pessimism* from a mathematical point of view by claiming that "... There is the problem, seek its solution. You can find it by pure reason, for in mathematics there is no *ignorabimus*."

⁴ Gödel's *Incompleteness Theorem* was almost a death blow to Hilbert's ambition to formalize the human thinking process once and for all. Gödel is known to have presented the basics of his theorem to a few of the celebrated *Viennese circles* in a Tea Café in 1930. Apart from the philosophers like Carnap, Feigl and Waismann in the audience, Hilbert's brightest student Von Neumann was also there – he was the first to smell the devastating significance of Gödel's casually presented talk.

In 1931 Gödel's presentation appeared in the German Language which reads in English as "*On formally undecidable propositions in Principia Mathematica and related systems.*"

This initiated a widespread critique of the notion of *consistency* of the formal system as well as our thinking process as a whole. Details of the wide impact are not important here, but Gödel's theorem effectively meant that **Truth** is not a computable property.

⁵ The debate between Realists and Phenomenologists is as old as the activities called Philosophy. *Realists* claim that reality is *out there* independent of any observer, but the *Phenomenalists* decline to get beyond phenomenal experience. Phenomenalists claim the world to be a fictitious construction based on linguistic or mental ingredients. This debate continued inconclusively for centuries in different guises. The Bohr-Einstein debate on quantum reality is nothing but a modern variant of this age-old debate - while Einstein took a realist standpoint, Bohr was comfortable with *Phenomenalism*.

Bell's theorem can be credited to having come up with a mathematical inequality as an expression of certain very general realist restrictions at the disposal of experiment or empirical verification rather than pure arguments.

Alain Aspect was able to put this age-old theoretical concern captured in Bell's theorem to test (1982) which is at least helpful to make some empirical choices. So Purcell's gratification can be naturally appreciated.

[3]: Also see, Is Nature a thing out-there? Elisa Freschi, ArXiv / Indian Philosophy Blog /29/01/2016

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5. [^] *Philosophy and the Mirror of Nature, Princeton University Press, 1980*
6. [^] *Is the End in Sight for Theoretical Physics, Physics Bulletin, 1981*