Thus spoke Pushpa

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Thus spoke ప్శ్పా (Pushpa): an India movie that brought the movie industry to its senses, with its global popularity.

Why should we--the scientists--care? Also, is popularity a good thing?

Popularity is a good thing by virtue of being a good proxy for GOOD (e.g. eating, sleeping, raising one's family, education…). Pushpa has, in the words of Tolkien, "the inner consistency of reality", which accounts for its popularity. It is not one of those Hollywood movies about saving the world; nor is it about going where no man has gone before. Pushpa doesn't have the usual heroic hooks routinely deployed so that everybody from all over the world can relate to (cf. Thorp, 2021).

Now, you lost me again: How is reality related to popularity?

If the building I am in starts shaking, then I'll run out; so will everybody else (which is what it means to engage in a popular act). I'll not while away on cost-benefit analysis of various choices.
on the menu within the reach of my agency (note that I'm a layperson; unlike a welfare
economist ;-) nor will anybody else in the building.

OK, simply put, reality is popular.

Where are you going with this?

Global Science and Education Policy: I propose

'Making Something with the Inner Consistency of Reality'

an integral part of the core curriculum of education, science, and research (a la calculus
requirement ;-).

But, why?

What is reality, anyways?
All we have is our conscious experiences; yes, there are scientific theories, models, predictions, and their verifications in experiments, all of which is planned perception. Every view--beginning with individual conscious experience and all the way to collective scientific understanding—is from a viewpoint, which in the case of individuals is the self, while it is a doctrine in the case of collective sciences, as Maxwell recognized, and as Professor F. William Lawvere established with his Functorial Semantics (see Posina, 2020 and references therein).

So, within our subjective experience, how do we tell if it is real, given that we have no access to reality to compare our experience of it?

The genius of reality is that we don't need it!

The reality (that isn't :-) is reflected in our individual conscious experience and in our collective scientific understanding as:

1. **Unity of Being** (a mode of cohesion; the way words stick together to make an argument, which is different from the way my fingers stick together to make grasping possible--a different mode of cohesion). The cohesion that blossoms in putting together those that fit together appears beautiful (cf. no holes in the story). It is this beauty [unity/cohesion] that "sparks the many particular processes whereby ignorance becomes knowledge" (Lawvere, 1991, p. 2; Posina, 2022).
2. **Naturality of Becoming** (every change of any object [of a category] preserves its essence/cohesion). Clouds have a way of moving (as though they have all the time there is), cars [in Bengaluru] have a way of moving (as though they own all the space there is), while the cat sitting on the wall across my window has a way of ignoring me (I have been looking at it for the past 5 years or so; not once did I see the cat look at me). Also, Johansson's point light walker vividly illustrates the naturality of becoming: Becoming consistent with Being ([https://youtu.be/r0kLC-pridI](https://youtu.be/r0kLC-pridI); see also Lawvere and Schanuel, 2009, p. 152; Posina, 2016), which is, by the way, what makes science possible.

Fine! Now, what do you want me to do?

**Focus on the Artifact:**

1. Equip it with the unity of Being (informally speaking, make sure it makes sense i.e., ensure that there are no loose ends or gaping holes in the story, so to speak).

AND

2. Ensure that its Becoming is natural, both of which—together—will ensure that the artifact appears real. In appearing real, it motivates us to act—engaging the agency needed for purposeful action.
Forget audience:

Eyeballing audience intellect, reading the room, etc., and titrating the talk to elicit a pre-conceived desired reaction (applause, of course ;-) from the audience, all based on heuristics and/or nudges (to make people behave in their(?) interest; paternalism has to address its relevance given that every generation is more proficient in abstract reasoning than the previous one; simply put, our nieces and nephews can think not only about more things, but also more clearly than we can; see Pinker, 2011, p. 311) is pre-scientific. We are mature enough to focus on science: a reflective part of reality (Lawvere and Schanuel, 2009, pp. 84-85). Science—in parts and as a whole—reflects the Unity of Being and the Naturality of Becoming, the two canonical qualities of reality (for definitions of quality types, see Lawvere, 2007). COVID science fails on these two counts, possibly because it doesn't appear real. If it did, then we wouldn't have to make laws to bend people into COVID-appropriate behaviour.

Pushpa didn't ask anybody to act as its actors did, but in appearing real—unity of Being and naturality of Becoming—it moved people all across the globe to follow in the footsteps of Pushpa.

Where did COVID science go wrong? It's not because of the difficulties inherent in communicating complex scientific notions or a failure of science outreach (cf. Henry, 2005), but a disturbing failure of science administrators/policy makers to realize a basic fact about people:
Everybody is equipped with a FAKE-detector, which goes abuzz whenever we encounter any deviations--in our conscious experience--from the inner consistency of reality. If it doesn't appear real, then it's not real (reality doesn't have agency; unlike us, it cannot pretend to be something other than what it is; see also Croxson, Neeley, and Schiller, 2021).

Artists struggle to endow the inner consistency of reality to whatever it is that they are making. For example, Pushpa was [almost] a decade-in-making, with hundreds of professionals all of whom are committed to excellence all of which is in vivid display in Pushpa, which suggests [to me] the significance of reviving the Bourbaki-mode of collective scientific struggle to make sense of reality. According to Professor F. William Lawvere: Bourbaki (which included the who's who of eminent mathematicians: Charles Ehresmann, Grothendieck, MacLane…) discussed how one structure could be deduced from another (Lawvere and Rosebrugh, 2003, p. 240, a research program that needs to be pursued with passion, if we are to understand the bewildering varieties of categories of Being, along with no less diverse categories of Becoming that we encounter in making sense of reality; see Lawvere, 1991, 1999, 2007; ibid, 2003 for zero of Becoming or zero change/constancy; ibid, 2016 for the zero of Being or zero unity/discretness).

Scientists, on the other hand, have a dual task: Ensure that the Unity of Being and the Naturality of Becoming that is Reflected in Science remain Clearly Visible (make sure that we--the scientists--don't cast our outsized shadows on and muddle the inner consistency of reality). How should we go about that?
Lesson I: Intellectual mass

There is no difference between people and scientists, intellectually speaking (see Einstein, 1936/2003, p. 23; Fodor, 2006, p. 93; Schapira, 2016; see also Colquhoun, 2006). In consciously participating in various everyday practices and abstracting the essence(s) of those practices to guide the very practices, people are not unlike scientists (see Lawvere, 2003, p. 213; see also Lawvere and Schanuel, 1997, p. xiii; Gopnik, Meltzoff, and Kuhl, 2009). Family, society, and culture didn't happen; they were made by people--made, with the inner consistency of reality (the unity of Being and the naturality of Becoming), to last (see Lawvere, 1999, p. 411). If you don't understand what I'm saying, then it's my failure; it is this spirit of enriching our collective understanding that should guide the practice of scientific research.

Lesson II: Question science

Begin with Maddox (1992). Even Buddhism--a "so called" religion--demands questioning as an integral part of its everyday practice, which led neuroscience to recognize Buddhist philosophy as science of mind (Kandel et al., 2013, p. 1016). In a mystifying role-reversal, of all people, a Nature editor demands faith, speaking in tongues (belief, oracle, pronouncements; Nature Editorial, 2016), while many scientists amuse themselves with selfies (Geman and Geman,
Science doesn't need salesmen. Science needs scientists: scientists capable of abstracting concepts needed for ever more refined alignment of reason with experience.

Lesson III: Fine print / Legalese

Surely, anyone and everyone should question science, especially COVID science, which is littered with lies (Posina, 2021). And the questioning should be spelled-out in the spirit of fine print / legalese, with its enviable precision and comprehensiveness.

Putting it all together, COVID has been the Headline News for years, but that is no reason for science to adopt journalistic standards of truth predicated on 'a lie repeated sounds true'. Language and communication are not the problems plaguing COVID science; it's the absence of sincere auditing (e.g. Núñez, 2019) of the COVID data that is bankrupting science (from indispensable to disposable), not just COVID science.

Thank you very much for your attention /

The floor is now open for discussion!
https://www.nature.com/articles/442357a.pdf.


https://www.pnas.org/content/pnas/113/34/9384.full.pdf.


https://www.nature.com/articles/355201a0.pdf.

https://www.nature.com/articles/529437a.pdf.


https://www.nature.com/articles/478309a.pdf


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https://www.pnas.org/content/118/19/e2106795118#comment-5395475006.


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